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ABSTRACT

Government agencies in Taiwan have carried out agricultural extension programs since 1910, with the assistance of Farmers' Associations. Programs have been expanded since 1953, and now include both general extension (subsidy programs) and educational extension. Comparison of personal characteristics of hsien (county) Farmers' Association supervisors and government supervisors revealed differences in length of job tenure, emphasis on general or educational extension, involvement in program planning, and perception of extension objectives and the means to be used in achieving them. There was a marked tendency for hsien Farmers' Association supervisors to perform their supervisory extension by developing and helping township extension workers to carry on better educational extension programs, while hsien government supervisors emphasized interpretation of government policies and passing on government instructions to township extension workers for execution. The government supervisors' objective is to implement government production policies rather than to help township extension workers perform educational roles or develop farm people and life situations. Restructuring of agency functions could improve extension services. (MF)

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CHARACTERISTICS, VIEWS HELD OF AGRICULTURAL EXTENSION ACTIVITIES, AND COMMUNICATION BEHAVIOR OF HSIEN EXTENSION SUPERVISORS IN TAIWAN

Extension Education Research #450

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The Department of Extension Education

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by

Pi-Feng Hong

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TABLE OF CONTENTS

CHAPTER		PAGE
I.	THE TAIWAN SETTING	1
	I. AGRICULTURAL DEVELOPMENT	1
	Agricultural Situation During 1895-1945	1
	Agricultural Situation After 1945 (End of World War II)	2
	Factors Contributing to the Rapid Agricultural Growth and Production	3
	II. AGENCIES AND ORGANIZATIONS RELATED TO AGRICULTURAL DEVELOPMENT	4
	III. ASSESSMENT AND EVALUATION OF EXTENSION WORK	5
	Prior Status	5
	Why This Study	6
II.	CONCEPTS AND STUDIES RELATING TO ROLE PERFORMANCE OF EXTENSION WORK	8
	I. CONCEPTS AND CONCEPTUALIZATION	8
	Position and Role	8
	Attitudes	9
	The Image Concept	10
	Interpositional Relationships in the Social System Context	11
	II. STUDIES OF EXTENSION ROLE DEFINITIONS AND VIEWS	12
	Factors Influencing the Definition of Extension Roles	12
	Situational and Background Factors	12
	Agent's Perception of the Extension Position	14
	Agent's Perceived Functions and Organizational Structure Within the System	14

CHAPTER		PAGE
	Components of the Extension Agent's Role	15
III.	IMPLICATION FOR THIS STUDY	17
III.	AGRICULTURAL EXTENSION ORGANIZATIONS IN TAIWAN	19
I.	AGRICULTURAL EXTENSION BEFORE WORLD WAR II	19
II.	AGRICULTURAL EXTENSION AFTER WORLD WAR II	21
	Objective of the New Look Organization of Extension Effort	21
	Relationships Between Extension Organizations . .	22
	Control and Direction of Two Types of Extension Programs	23
	Functional and Dysfunctional Considerations . . .	26
	Information Development and Flow Through the System	29
III.	RATIONALE FOR THE STUDY	31
IV.	SCOPE OF THE STUDY AND METHODOLOGY	34
I.	WHY TAIWAN	34
II.	THE STUDY AREA	35
III.	THE INTERVIEW SCHEDULES AND INTERVIEWING	37
IV.	FIELD PROCEDURES	38
V.	SAMPLING AND SAMPLE SIZE	38
VI.	DATA PROCESSING	39
V.	THE HSIEN EXTENSION SUPERVISOR POSITION	41
I.	PROFESSIONAL CHARACTERISTICS OF HSIEN SUPERVISORS .	41
	Length of Time in Occupation	41
	Stability of Occupational Tenure	44
	Perceived Nature of Work	46
	Orientation to Work	48

CHAPTER		PAGE
II.	ROLES EMPHASIZED BY HSIEN SUPERVISORS	50
	First Most and Second Most Day to Day Activities Emphasized	50
	Perception of Own Major Responsibilities	53
VI.	VIEWS HELD OF AGRICULTURAL EXTENSION ACTIVITIES BY HSIEN SUPERVISORS	55
I.	VIEWS HELD OF AGRICULTURAL EXTENSION OBJECTIVES AND TOWNSHIP EXTENSION ACTIVITIES BY HSIEN SUPERVISORS	55
	First and Second Most Emphasis the Supervisors Placed on the Seven Extension Objectives	55
	Perceived Actual and Ideal Extension Activities Implemented by Township Extension Advisors . . .	56
	Recommended Methods of Resolving Conflicting Views Held Between Local Chiefs and Supervisors	58
II.	VIEWS HELD OF THE ROLES OF AGRICULTURAL TECHNICIANS BY HSIEN SUPERVISORS	62
	Who the Agricultural Technician is	62
	What Extension Activities Agricultural Technicians Should Emphasize in Helping Hsien Supervisors	65
	What Extension Activities Agricultural Technicians Should Emphasize in Helping Township Advisors	68
III.	VIEWS HELD OF THE AGRICULTURAL EXTENSION ADVISORY COMMITTEES BY HSIEN SUPERVISORS	71
	Actual Functions of Hsien Extension Advisory Committees	73
	Ideal Functions of Hsien Extension Advisory Committees	75
	Accomplishment of Hsien Extension Advisory Committees	76
IV.	PERCEIVED FAVORABILITY OF SELECTED "SIGNIFICANT OTHERS" TOWARD OWN EXTENSION ACTIVITY	76

CHAPTER		PAGE
VII.	COMMUNICATION BEHAVIOR OF HSIEN SUPERVISORS	79
	I. CONTACTS WITH RELATED EXTENSION PERSONNEL AND ORGANIZATIONS	79
	Personnel Contacts Made	80
	Purpose of Contacts	87
	II. SOURCES AND CHANNELS USED TO GET FARM INFORMATION .	92
	Sources Used	93
	Channels Used	100
	III. CHANNELS USED TO DISSEMINATE FARM INFORMATION TO EXTENSION WORKERS	102
VIII.	SUMMARY AND CONCLUSIONS	107
	I. SUMMARY	108
	II. IMPLICATION AND CONCLUSIONS	116
FOOTNOTES		120
BIBLIOGRAPHY		125
APPENDIX I.		131
APPENDIX II.		153

LIST OF TABLES

TABLE PAGE

I. Percent of Hsien Extension Supervisors Classified by Position Location and Years in Present Position 42

II. Percent of Hsien Extension Supervisors Classified by Position Location and Years in Extension Work 43

III. Number of Hsien Extension Supervisors Classified by Position Location and Reasons for Leaving the Organization 45

IV. Percent of Supervisors in Hsien Farmers' Associations and Hsien Governments Classified by Perception as to the Nature of Their Work 47

V. Percent of Hsien Extension Supervisors Classified by Position Location and Own Major System Identification 49

VI. Percent of Hsien Extension Supervisors Classified by Position Location and Relative Emphasis Assigned to Extension Activities 51

VII. Percent of Hsien Extension Supervisors Classified by Position Location and Perception of Own Major Responsibility 54

VIII. Percent of Hsien Extension Supervisors Classified by Position Location and Relative Importance Attached to Extension Objectives 57

TABLE PAGE

IX. Percent of Hsien Farmers' Association Supervisors Classified by Own Perceptions of Actual and Ideal Emphasis Placed on Extension Advisors' Activities . . . 59

X. Percent of Hsien Government Supervisors Classified by Own Perceptions of Actual and Ideal Emphasis Placed on Extension Advisors' Activities 60

XI. Percent of Supervisors in Hsien Farmers' Association and Hsien Governments Classified by Recommended Method of Conflict Resolution Between Provincial and Immediate Supervisors 61

XII. Percent of Hsien Extension Supervisors Classified by Position Location and People Believed to Have Most Decisive Influence on Township Extension Advisors 63

XIII. Percent of Hsien Extension Supervisors Classified by Position Location and Relative Emphasis on Activities They Think Agricultural Technicians Should and Do Place on Helping Hsien Extension Supervisors 66

XIV. Percent of Hsien Extension Supervisors Classified by Position Location and Relative Emphasis They Think Agricultural Technicians Should Place on Designated Activities to Help Township Extension Advisors 70

XV. Percent of Hsien Extension Supervisors Classified by Position Location and What They Regard Major Responsibilities of Agricultural Technicians in Research Institutes and Improvement Stations To Be . . 72

TABLE PAGE

XVI. Percent of Hsien Extension Supervisors Classified by Position Location and by First Order Importance Assigned to Designated Functions of Hsien Extension Advisory Committee; Should and Do 74

XVII. Percent of Hsien Extension Supervisors Classified by Position Location and by Proportion of Functions They Think Hsien Extension Advisory Committees Have Accomplished 77

XVIII. Percent of Hsien Extension Supervisors Classified by Position Location and Perceived Favorability of Selected "Significant Others" Toward Own Extension Activity 78

XIX. Percent of Hsien Farmers' Association Extension Supervisors Classified by Reported Number of Contacts with Designated Agency Personnel and Who Usually Initiated the Personal Contacts 81

XX. Percent of Hsien Government Extension Supervisors Classified by Reported Number of Contacts with Designated Agency Personnel and Who Usually Initiated the Personal Contacts 84

XXI. Percent of Hsien Farmers' Association Extension Supervisors Classified by Purpose of Personal Contacts with Selected Clientele 88

XXII. Percent of Hsien Government Extension Supervisors Classified by Purpose of Personal Contacts With Selected Clientele 90

TABLE PAGE

XXIII. Percent of Hsien Extension Supervisors Classified by Position Location and Use of Designated Farm Information Sources and Channels to Get Farm Information 94

XXIV. Percent of Hsien Extension Supervisors Classified by Position Location and Use of Designated Channels and/or Media to Communicate Farm Information to Township Extension Workers 101

XXV. Percent of Hsien Extension Supervisors Classified by Position Location and Most and Second-Most Used Channels and/or Media to Communicate Farm Information to Township Extension Workers 104

LIST OF FIGURES

FIGURE		PAGE
1.	Schematic Diagram of Analysis of Role of County Extension Agents	16
2.	Taiwan Agricultural Extension Organization Chart	32
3.	Map of Study Area in Taiwan	36

CHAPTER I. THE TAIWAN SETTING

I. AGRICULTURAL DEVELOPMENT

Most tropical and subtropical countries of the world share certain common characteristics and are confronted with somewhat similar problems. Generally, they are predominantly agricultural and have not yet adequately developed their rural resources. A majority of their people live on farms. Only with increased farm production and increased income can their livelihood be bettered and the social and political order be stabilized and democratic institutions strengthened in those countries. Consequently for rehabilitation purposes, the Republic of China has adopted a policy in the island province of Taiwan beginning with the improvement of agriculture as a base and following gradually with industrial development.

The Agricultural Situation During 1895 to 1945

For a half century prior to 1945, Taiwan in its colonial status, served as an important source of food supply for Japan and as a market for her industrial products. During this period farm production was more than doubled by agricultural research and demonstrations, extension of "Japonica" rice varieties, development of flood control and irrigation, and the use of chemical fertilizers. Farmers' Associations were established for the collection of rice and other products for export to Japan, distributing fertilizer, and also to provide an extension education program for farmers. However, World War II caused a deterioration in the irrigation system, a reduced supply of chemical fertilizers, and

as a result, a sharp decline in food and other agricultural production to the 1910 level.

The Agricultural Situation After 1945 (End of World War II)

The rehabilitation of agriculture became the most important task of the government in 1945 soon after the Chinese National Government took over Taiwan from Japan.

In the immediate post-war years, Chinese administrators, engineers, and agriculturalists from the mainland and those originally working in Taiwan applied themselves to the task of rehabilitating and reconstructing the island with notable success.

The successful implementation of a land reform program, reorganization of Farmers' Associations, and technological advancements and improvements made by the government made it possible for agricultural production to recover quickly from wartime damages. By 1952 it exceeded prewar levels.[1]

In addition, the first Four-Year Economic Development Plan was launched by the government in 1953. Four Four-Year Economic Development Plans had been successfully completed by the end of 1968 and the fifth Four-Year Economic Development Plan is currently in its first year.

As a result of the successive completion of the four Four-Year Economic Plans the aggregate agricultural output of crops, livestock, fisheries, and forest products in 1967 was double that of the 1950-1952 average or that of the prewar peak year. The average annual growth rate of agriculture was 6.2 percent for 1953-1956, 5.0 percent for 1957-1960, 6.2 percent for 1961-1964, and 6.5 percent for 1965-1968 (estimated, writer's note), respectively.[2] This rapid growth rate of agricultural

production is higher than those of the developing and developed countries in the corresponding period.[3]

"Why has it been possible for Taiwan to achieve such a rapid agricultural growth in the past 16 years?" is a common question so frequently asked by many people who visit Taiwan.

Factors Contributing to the Rapid Agricultural Growth and Production

Christensen states that Taiwan has an outstanding record of improving agricultural productivity. Total agricultural output has increased much more than total conventional inputs of land, labor, and capital. Agricultural output per unit of input more than doubled from 1911 to 1965. Measured in real terms or in constant prices, input per unit of output declined one-half. Increased efficiency in the use of resources of farms accounted for about half of the rise in total agricultural production. Moreover, agricultural output per unit of input increased at an annual rate of 2.5 percent a year. The rapid growth of overall productivity since 1952 is especially significant when it is considered that physical possibilities of bringing additional land under cultivation was very limited and agriculture had to provide employment for an increasing number of workers.[4]

This indicates that in Taiwan, technological innovations and efficient information dissemination devices that increased production per unit and per capita have played an important role in upgrading agricultural production.

Christensen concluded:

> "Taiwan owes much of its present economic health to three major developments. The first was land reform. This included reduction of land rentals and in 1949, sale of government-owned land to farmers, and the land-to-the

> tiller program beginning in 1953, under which tenant farmers were helped to become landowners. The second was reorganization in 1953 of Farmers' Associations and cooperatives to put them in more direct control of farmers. The third was agricultural development planning, launched in 1953 with the first of successive Four-Year Economic Plans, which helped achieve effective use of scarce land, water, fertilizer, and other inputs. Taiwan's agricultural development strategy was a multi-phase approach that gave attention to many things--education, research, extension, credit, price incentives, marketing, storage facilities, and infrastructure for irrigation, drainage, roads, and the like."[5]

T. S. Shen, Chairman of the Joint Commission on Rural Reconstruction, attributed the rapid growth of agricultural production to (1) resources endowment, (2) technological advancements, (3) organizational improvements, (4) economic incentives, and (5) human factors. Shen further specified that organizational improvements included governmental and farmers' organization structures, research and educational systems, and the organization for channeling the resources and the technology down to the village and farm level for increasing output.[6]

II. AGENCIES AND ORGANIZATIONS RELATED TO AGRICULTURAL DEVELOPMENT

There are government agencies concerned with agriculture at the national, provincial, county, and township levels, and Farmers' Associations at the provincial, county, and township levels. The two organizations, Joint Commission on Rural Reconstruction (JCRR) and Farmers' Associations, are unique to Taiwan and not found in other countries. JCRR assists the government in planning and coordinating agricultural programs, and cooperates with government agencies and Farmers' Associations at different levels. The Farmers' Associations, which are multipurpose cooperatives, serve as a bridge between the local governments and the farmers, particularly at the township and village levels.

As an extension worker, it is a quite interesting problem to elaborate further to see how these organizational factors, especially the organizations for channeling the resources and the technology down to the village and farm levels, and also how the organizations themselves have played their roles in the agricultural information dissemination system.

How farm information flows from its original source to farmers' hands, how innovators or early adopters in a community influence other farmers in adoption of new farm practices, and what are the interpersonal and inter-organizational patterns of communication and influence which might enhance the diffusion of farm information and affect the progress of extension programs, are all interesting items to be considered.

It is believed that a clearer understanding of these elements could be very helpful to the change agencies for further improvement and elaboration of extension programs. Effective dissemination of new information about an innovation has been generally recognized to depend upon the nature of the communicator, the communication, the media, the audience, and the situation.[7]

III. ASSESSMENT AND EVALUATION OF EXTENSION WORK

Prior Status

Although an agricultural extension program was established in Taiwan in 1953, no farm diffusion research was carried out until Herbert F. Lionberger and H. C. Chang initiated an extensive and comprehensive diffusion study in 1966. As a result, the farm information development system and dissemination system in Taiwan have been, for the first time in its history, reviewed by researchers.

The following studies growing out of this research have either appeared in print or are in the process of publication:

1. Communication and Use of Scientific Farm Information by Farmers in Two Taiwan Agricultural Villages,[8]

2. Functional and Structural Analysis of Scientific Farm Information Development and Dissemination in Taiwan,[9]

3. Views and Use of Farm Information Sources by Farmers in Two Taiwan Villages.[10]

In general the analyses so far made are mainly on the use and views of information sources by farmers, farm information development agencies, and dissemination carried out by township extension agencies. No attempt has been made to see how extension workers in Hsien Farmers' Associations and Hsien Governments (hereafter referred to as hsien extension supervisors) operate as an intermediary between provincial extension offices and township extension offices or to determine how they perceive and view extension work on duties performed and on the use they make of different information sources for disseminating farm information.

Why This Study

Since hsien extension supervisors occupy intermediary positions in the farm information dissemination system, their main responsibilities are to provincial extension offices on one hand, and to supervise extension advisors at the township level on the other. Their perception of extension programs and the way they perform responsibilities surely influence the quality of township extension programs.

This study, which uses a portion of the Lionberger and Chang research data, is concerned particularly with the professional characteristics of hsien supervisors, the views they held of agricultural extension activities and their communication behavior relating to information dissemination.

Special emphases were to:

(1) compare different professional characteristics of supervisors in Hsien Farmers' Associations and Hsien Governments,

(2) compare the role perception of a supervisor as seen by two types of hsien supervisors,

(3) determine and compare how views held of agricultural extension activities varied with hsien supervisors in Hsien Farmers' Associations and Hsien Governments,

(4) determine and compare the difference of contacts, information sources and channels used for information dissemination by hsien supervisors in Hsien Farmers' Associations and Hsien Governments.

CHAPTER II. CONCEPTS AND STUDIES RELATING TO ROLE PERFORMANCE OF EXTENSION WORKERS

This chapter is intended to review some devices and findings which have been revealed by researchers in relation to the agricultural extension workers' views of the role of extension and the methods and activities employed by them.

I. CONCEPTS AND CONCEPTUALIZATION

Position and Role

Persons are always members of a society, and these societies are structured into positions, status, and roles. The positions are collections of rights and duties designated by a single term, e.g., county agent, county director, etc. The actions of persons, then, are organized around these positions and comprise the roles. Role and position are conjoined.

Roles are defined in terms of public expectations and the actions performed by the persons occupying the positions. Therefore it can be concluded "that all societies are organized around positions and the persons who occupy these positions perform specialized actions or roles. These roles are linked with the position and not with the person who is temporarily occupying the position."[11]

Sarbin further stated that:

> "the role is the organized actions of the person, directed toward fulfilling the role expectations. Variation in role enactment is a function of at least three variables. These are:
>
> (1) the validity of role perception--this implies the concurrent or just-prior perception and locating of the position of other and reciprocally of self,

(2) skill in role enactment--related to practice in the use of "as if" behavior,

(3) the current organization of the self--a cognitive structure that exercises a selective and directive effect on role perception and role enactment."[12]

Parsons held that "role involves the idea of function within a system, interaction between persons, and norms or value-standards." He further indicated that roles are the result of persons engaging in purposive behavior within an interactional context governed by group norms and taking place within a certain situation."[13]

Thus, persons occupying a position in a society will perform different roles in accordance with the positions they hold. However, role perception and views of individuals differ greatly in accordance with their past experience, attitude, social norms, and their view of obligation.

Attitudes

Stouffer and Toby pointed out that a person's role perceptions will be greatly different depending upon one's emphasis on institutionalized obligations to a clientele or a society.[14]

Sherif and Hovland attributed personal differentiation in attitude, view, and judgment to the individual's own stand on a social issue, previous encounters, value concepts and social norms.[15] They further stated "that in judgments of complex social stimuli, reference scales and internal and external anchors may interact in a rather complicated fashion. The joint determination of judgment by several anchors is probably typical in the social area."

Katz stated "that an attitude toward an object, person, group, or social issue is not directly observable but is inferred from a

persistent and characteristic mode of reaction to that stimulus or stimulus class."[16] This characteristic mode of reaction signifies differential treatment of the object of attitude. A person's attitude on an issue may well influence the way he appraises relevant behavior and events.

He further stated that:

> "At the psychological level the reasons for holding or for changing attitudes are found in the functions they perform for the individual, specifically the functions of adjustment, ego defense, value expression, and knowledge. The opinion formation and attitude change is one phase of the influencing of collective behavior, and its investigation involves knowledge of channels of communication, of the power structures of a society, of the character of mass media, of the role of formal and informal leaders, of the institutionalized access to officials. But the raw material out of which public opinion develops is to be found in the attitudes of individuals, whether they be followers or leaders and whether these attitudes be at the general level of tendencies to conform to legitimate authority or majority opinion or at the specific level of favoring or opposing the particular aspect of the issue under consideration."

The Image Concept

It is generally agreed that the formation of human percepts or views is rooted in two classes of determinants: stimulus factors and behavior factors. Stimulus factors refer to the properties of such stimuli as other people, pictures, a social setting, words, etc. Behavioral factors, on the other hand, refer to psychological states or processes of the individual; his needs, values, attitudes, past experiences, and so on. How people act depends on inner psychological processes and the nature of the external setting.[17]

What one sees or observes is inevitably what one selects from a near infinitude of potential percepts. "A person's perceptual selection is based on his value orientation which makes for perceptual sensitization

to valued stimuli, leads to perceptual defense against inimical stimuli, and gives rise to a process of value resonance which keeps the person responding in terms of objects valuable to him even when such objects are absent from his immediate environment."[18]

It can thus be inferred that favorable perception of an information source will lead a person to actual use of the source. It accordingly follows that consideration of the image held of sources is highly important for providing information needed in the development of a communication strategy.

Tresselt and Volkmann stated that the judgment of different individuals becomes uniform as they are exposed repeatedly to the same graded series.[19] Lestad and Stone further inferred that bureaucracy affects employees' perception and evaluation of their occupational roles.[20] Sherif and Hovland concluded that the effect of a communication will depend to a major extent on its relationship to the position of the recipient and his latitudes of acceptance and rejection.[21]

Interpositional Relationships in the Social System Context

Merton stated that:

> "A formal, rationally organized social structure involves clearly defined patterns of activity in which, ideally, every series of actions is functionally related to the purposes of the organization. In such an organization there is integrated a series of offices, of hierarchized status, in which inhere a number of obligations and privileges closely defined by limited and specific rules. Each of these offices contains an area of imputed competence and responsibility. Authority, the power of control which derives from an acknowledged status, inheres in the office and not in the particular person who performs the official role."[22]

Official action ordinarily occurs within the framework of pre-existing rules of the organization. The system of prescribed relations

between the various offices involves a considerable degree of formality and clearly defined social distance between the occupants of these positions. An individual's view or perception of a position thus will be also influenced greatly by the bureaucratic structure to which he belongs.

II. STUDIES OF EXTENSION ROLE DEFINITIONS AND VIEWS

The extension service is a complex organization which includes an administrative organization, trained professionals, a local sponsoring body, and a network of formal and informal relationships at all levels.

A number of studies have been made regarding the techniques used by the professionals in effecting changes in behavior, but relatively few studies have been concerned with the more general problems of role definition of the professional workers, relationship with local sponsoring bodies and with the clientele.

Factors Influencing the Definition of Extension Roles

Situational and Background Factors. J. D. George in his study of the relationship between the agent's definition of extension's educational role and selected situational and background factors, found that the agent's college major, hours of social science coursework, reaction to a hypothetical study grant offer, and plans for advanced study were related to his definition of extension's role. In general, a person who defines extension's role broadly tends to have a high level of training and/or interest in the social and behavioral sciences.[23]

However, it should be recognized that an agent's view concerning the mission of extension is influenced by a multitude of factors. An individual's role definition cannot be predicted from information on

formal educational experiences and interests alone. But this study implied that if cooperative extension is channeling its efforts toward a broader, more generalized adult education program, curricula for students planning a career in cooperative extension need to be critically reviewed.

Conceptually, the agent's definition of extension's role was assumed to lie somewhere on a continuum. At the "narrow" pole are those who view extension as an agricultural agency responsible for conducting educational programs for farm people, with primary emphasis on teaching the knowledge and skills required for efficient production and marketing of agricultural commodities. At the "broad" pole of the continuum are those who view extension as a general adult educational agency responsible for conducting diverse education programs for all segments of society (farm, rural non-farm, and urban).

Being a public agency, the Cooperative Extension Service has made certain impressions on the people who have come in contact with it. While each of us may have an opinion as to what these views are, our own background, experience, and involvement may lead us to false conclusions. In order to add some clarification to this problem the National Agricultural Extension Center for Advanced Study in the University of Wisconsin attempted to furnish additional insights into this topic through graduate researches and seminars.

Evidence contained in the seminar presentations and perception studies indicate a wide difference of opinion as to what extension's image is and should be.[24] [25] The image one has of an organization affects not only what he hears and sees about the organization but also

how he evaluates it as well. Blalock, Greenwood, and Abraham suggested that additional thought, observation, and study be given to what the public thinks of extension.[26]

Agent's Perception of the Extension Position. Wilkening compared the role definition of extension agents held by committee members with those held by the agents themselves. He pointed out that persons occupying different positions viewed the extension roles differently.[27] County committee members tended to view the agents more as generalists and as persons performing services for groups and agencies in the county than did the agents themselves. County agricultural committee members tended to define the roles of county extension workers in terms of local needs and interests rather than in terms of sectional, state, or national problems. This suggests that outsiders tend to view the extension role in terms of their own benefit.

Wilkening and Smith showed that an agent's perception of his position within the system influences the role definitions, performance, and satisfaction of the agent in his work.[28]

Agent's Perceived Functions and Organizational Structure Within the System. Wilkening and Smith pointed out that the organizational structure of the extension service provides a basis for differing orientations on the part of the county agent. The extent to which the agent is sensitive to expectations of those whom he serves or to his superiors within the organization is one of the basic dilemmas of the professional in an organization serving a clientele. The agent's orientation to "state level plans" or to "what local people want" greatly influences his views and extension activities.[29]

The agent's perceived functions are associated with his orientation within the system.[30] The perception of extension functions was again closely associated with a range of items including (a) definitions of content of the intensive extension approach, (b) procedures used in recruiting families, (c) methods of working with the families, and (d) satisfaction in the work.

Knowing the agents' general views about the functions of extension work, hence, gives some indication as to how they go about their job.[31] The nature of the agent's orientation enables one to predict certain of his role definitions. Thus, the relationship between functions performed and the structure of the system are of great significance.[32]

It has been clearly demonstrated that agents' occupational role perceptions are associated with their orientation to the system.

Components of the Extension Agent's Roles

Eugene A. Wilkening in his study of "The County Extension Agent in Wisconsin" (perceptions of role definitions as viewed by agents) attempted to schematically present the different components of the agent's role from a social psychological point of view.[33] His schematic diagram of analysis of the role of county extension agents is reproduced here for reference. (Figure 1).

The diagramatic scheme recognizes that the three solid-line circles at the top represent three types of individual or psychological variables affecting an agent's definition of his role. The dotted-line circles represent the local situational variables and the organizational variables which provide the setting within which the role is performed.

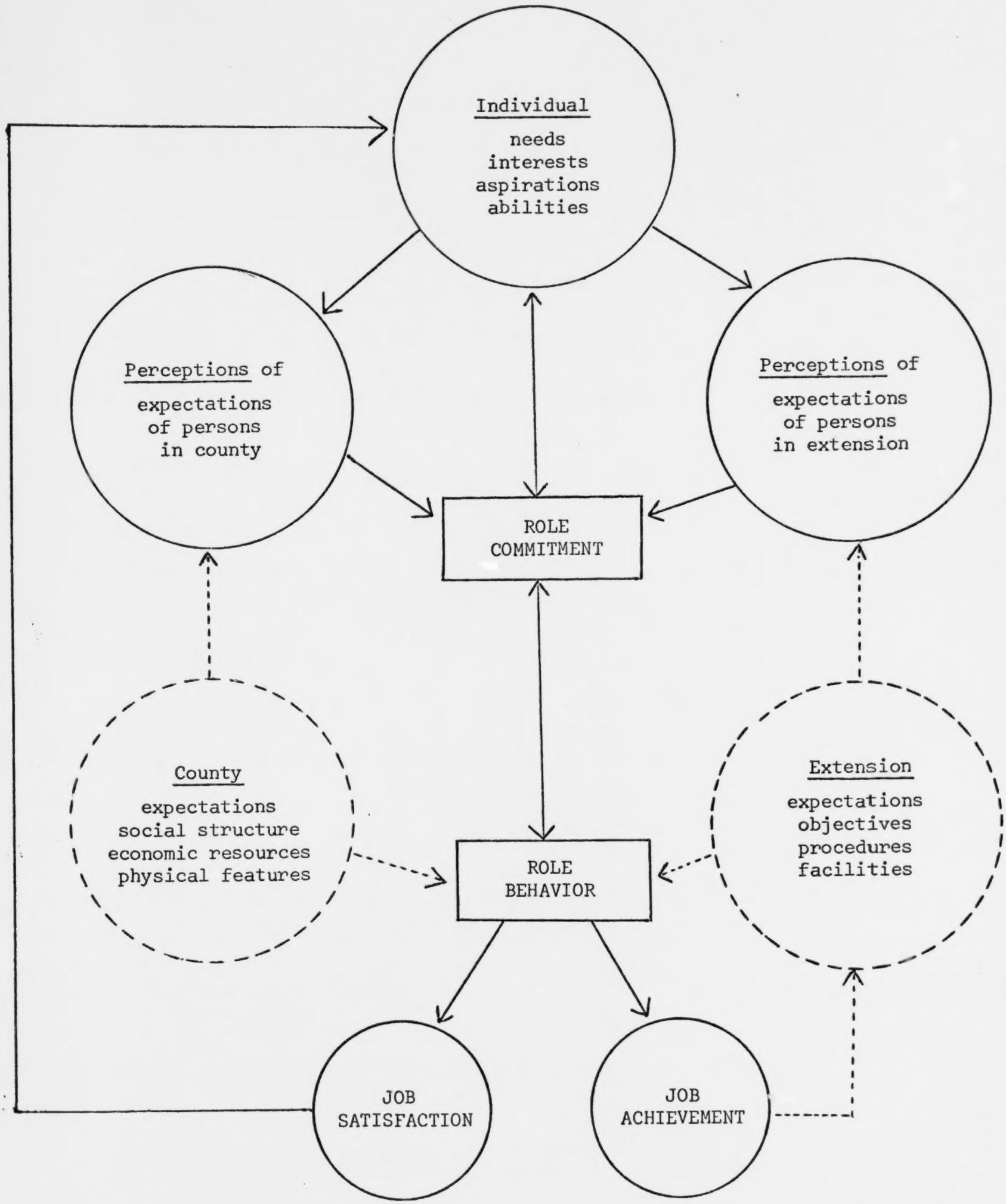

Figure 1. Schematic Diagram of Analysis of Role of County Extension Agents

Source: Research Bulletin No. 203, Madison, Wisconsin: University of Wisconsin Press, September, 1957, p. 4.

He found that different agents (agriculture, home, and 4-H) viewed their role, job, and prestige quite differently.[34] Agricultural agents tended to view themselves as "generalists" while home agents and 4-H Club agents tended to view themselves as "generalists with a special interest". Agricultural agents felt their position was "respected by others" more than other positions.

In regard to program content and extension activities the county extension agents were influenced strongly by local interests even when these interests were not compatible with his "ideal" definition of his role. Therefore, he suggested an hypothesis that "persons in intermediate positions such as county extension workers, will tend to conform to the expectations of those with whom they work at the local level or with those at higher levels, depending upon the nature of the rewards they are seeking and upon their control of relationships at the respective levels".[35]

Role fulfillments were somewhat higher among agricultural agents than among home agents and 4-H Club agents. All three groups of agents ranked the four major ways of influencing farm people in the same order. Of the mass communication, "newspapers" were ranked first by agricultural agents and home agents, and "circular letters" were placed first by 4-H Club agents. The three types of agents looked to different organizations and agencies for assistance in their programs. Agricultural agents had more satisfactory relationships with other persons inside the county than did the other two types of agents.[36]

III. IMPLICATION FOR THIS STUDY

All of these findings and evidences reflect that agents' views of their roles, activities, behaviors, and job satisfaction are influenced

by many internal and external, and psychological and organizational factors.

Studies of agent's role definition, role consensus, and role fulfillment can thus reveal their relationships and job performance as well as their weak links. Effective relationships between people require that there be some degree of consensus with respect to objectives of the system and how these objectives are to be attained. It is, therefore, worthwhile to analyze the views held of extension activities by different position incumbents as one consideration if further program improvement is desired and expected.

CHAPTER III. AGRICULTURAL EXTENSION ORGANIZATIONS IN TAIWAN

Agricultural extension work is not new to farmers in Taiwan. Historically, Taiwan has had such services for a long time.

I. AGRICULTURAL EXTENSION BEFORE WORLD WAR II

During the period Taiwan was occupied by Japan from 1895 to 1945, the Japanese developed Taiwan with a colonial point of view. They knew the importance of agriculture, so they concentrated on developing Taiwan as an important source of food supply for Japan and as a market for her industrial products. For a long period, there was a policy of agriculturizing Taiwan and industrializing Japan in the minds of Japanese administrators.

They accordingly made agricultural extension work the center of their rural activities and used autocratic methods to gain their goals. At the height of their efforts they employed around 13,000 technical workers, 9,000 of whom were agricultural extension personnel working in villages and closely associated with local Farmers' Associations. The Japanese recognized the importance of Farmers' Associations, which were voluntarily organized by farmers themselves at the beginning of the 20th century. Their original purpose was to guarantee rights of farmers to till the land and reduce rent. To develop rural areas, the Japanese legalized the associations and controlled them by assigning government officials to work in the associations.

There were three levels of Farmers' Associations, the provincial, the prefectural (hsien) or county, and the township. The Japanese

considered these organizations the most important elements in their plans of agriculturizing the island. The island's Governor-General was the executive head of the Provincial Farmers' Association and the chief Japanese official in each hsien and township was the chief executive officer of the Farmers' Association in his jurisdiction. They coordinated closely the work of the associations on these levels through these officials. They recognized the vital position of the associations by providing adequate financing.[37]

Thus, Farmers' Associations came to be an agency in the rural areas to implement government policies relating to agricultural development programs. Efforts included all kinds of activities such as collecting rice, setting up demonstration plots, distributing fertilizers, extending new improved seeds or seedlings, providing farming materials, and marketing agricultural products. In short, they carried out both educational and service type extension programs. This "set-up" considerably influenced the extension function of Farmers' Associations in the later stage of development.

Paralleling with Farmers' Associations, were the Provincial, Perfectural, and Township Governments. Most government developmental plans on agriculture were initiated by technicians in the reconstruction divisions of the three levels of government offices. They were then implemented cooperatively with the extension workers in the corresponding level of Farmers' Associations. Many regulatory works such as inventory survey, acreage reports on crop plantation, and crop damage survey caused by floods or pests were often executed by extension workers in the Farmers' Associations.

Extension programs during this time were mainly aimed at increasing food production. Such activities as setting up demonstration plots and encouraging farmers to plant new high yield varieties and adopt improved practices were used. Most of those efforts were subsidized by the government and carried out by the extension workers in the Farmers' Associations.

This organizational setup emerged as the pattern for both governments and Farmers' Associations engaged in the program of agricultural production. From the extension point of view, Farmers' Associations were, at that time, the subordinate agency of the government to execute agricultural production programs. The concept of extension programs perceived by extension workers was limited to the teaching of agricultural techniques. This narrow sense of the extension concept which deeply affected the government extension technicians, has prevailed in their minds, even in the "new look of extension educational programs" which was introduced to Taiwan after World War II.

II. AGRICULTURAL EXTENSION AFTER WORLD WAR II

Objective of the New Look Organization of Extension Effort

A "new look of extension programs", aimed at educating people and community development as a whole, was introduced to Farmers' Associations in 1953. Since then, two types of extension programs have existed in Taiwan. One is the general type, mainly referring to the agricultural extension program in its narrow sense which has been carried out by government agencies, and the other an educational type which emphasized the development of people with primary responsibility lodged in the Farmers' Associations for carrying out the programs.

Since rural society in Taiwan is moving gradually from agriculture to industry, the co-existence of two kinds of extension programs for a certain period of time seems to be quite necessary. However, an effort should be made to place more emphasis on educational extension programs when social change is taking place toward an industrial society.

Relationships Between Extension Organizations

In Taiwan, there are a large number of agencies including public, semi-public, and private organizations engaged in agricultural extension work of some kind. The Provincial Department of Agriculture and Forestry (PDAF) is the leading governmental agency at the provincial level. Besides, the Provincial Food Bureau (PFB) and the Tobacco and Wine Monopoly Bureau, which is under the Department of Finance, are also responsible partly for the extension of the major food crops and tobacco, respectively.

At the local levels, local governments in the 21 hsiens and cities and 317 townships have agricultural sections with about 1,500 agricultural workers. They have authority to do extension work besides various regulatory and service functions. The Taipei Special City has recently been administratively separated from the Provincial Government and has been carrying on agricultural programs independently. It has 12 district offices with about 60 agricultural workers participating in agricultural production programs.

Paralleling these governmental agencies, the three levels of Farmers' Associations have extension sections, with a total extension staff of about 1,200 persons carrying out extension educational programs as well as other services, non-educational in character. The Farmers'

Associations are permitted by law to collect "extension fees" from farmers for their services.

Another group of agencies are the commodity agencies of public and private enterprises, such as the Taiwan Sugar Corporation, the Pineapple Corporation, The Agricultural Corporation (Tea Corporation), and the Mining and Industry Corporation, which have personnel who devote time to work with farmers on the special enterprise of concern to them.

Since 1953, the Joint Commission on Rural Reconstruction (JCRR) has helped the above agencies and organizations in strengthening their extension programs by providing both technical and financial assistance with good results. In 1953, JCRR helped promote 4-H Club work for out-of-school rural youth in Taiwan at the provincial level, and in 1954, it further helped the Provincial Department of Agriculture and Forestry to establish a section of Information and Education. Later in 1963 it was reorganized to be the Division of Extension Education. In 1955 the Commission helped the three levels of Farmers' Associations to carry out a "new look" agricultural extension program for adult farmers and in 1956 helped promote home economics programs for homemakers in Taiwan.

Control and Direction of Two Types of Extension Programs

In the beginning the so-called "new look" agricultural extension educational work including adult farm work, 4-H Club work, and home economics extension, was established through three levels of Farmers' Associations on a demonstration basis. It was expanded gradually in terms of the number of townships and hsiens. The idea was to separate educational work from regulatory and other non-educational functions, and to emphasize local initiative, local participation, and local

cooperation in program planning and execution as well as the use of extension teaching methods.

The agricultural extension educational program is aimed at training farmers to be "modern" ones by means of education. The criteria for "modern" farmers are generally thought to be three in number.[38] The first one is to increase production by applying new farming methods. The farmers are educated as to how to utilize the resources of production properly so that the increased cash income can be spent wisely and economically.

The second one is that "modern" farmers should have a far-sighted understanding of the present world. Farm production today is one of business enterprise, the produce being not only for own consumption but also for exchange with others. Farmers should have a good knowledge of the supplying and marketing of agricultural products in various parts of the world so that their production may not be blindly affected but in accordance with the law of economics.

The third one is that "modern" farmers should be good civilians having good physique, good spirit of offering services and the conception of loving their own country and native land.

The conditions mentioned above actually include three cultural aspects, i.e., those of agricultural science, economics, and sociology, which together make a complete rural extension education program. The objective is to develop farm people as a whole. The scope of concern is the entire rural community. The final purpose is to raise the living standard of all farmers.

Up to date, the "new look" extension work for adult farmers has been carried out in 303 townships and districts in Taiwan Province plus

Taipei Special City. The project covers all the farmers living in about 6,000 villages in the foresaid areas. The 4-H Club work with out-of-school rural youth has been conducted in 301 townships and districts. About 70,000 boys and girls are enrolled in agricultural projects, such as rice, sweet potatoes, vegetables, hogs, poultry, etc., and about 15,000 rural girls in homemaking projects. In addition, there are 248 townships and districts that have home economics programs with the participation of 44,000 homemakers enrolled in 2,600 clubs.

In spite of the emphases that Farmers' Associations have placed on the "new look" educational program the so-called general extension programs still exist at the three levels of government. Really, it is not an easy task to shift from the subsidy type of extension program to the educational type in a short period of time. If the shift is too fast, it may be detrimental to the program and farmers may not be able to get the proper benefit from it. It accordingly may be wise to keep both types of extension programs for a certain period of time. Because food production is still the main target for developing countries, the continuous increasing of the food production should not be interupted owing to the shift of emphasis in the extension programs. In most underdeveloped countries, subsidy types of extension still play an important role in encouraging farmers to adopt improved practices.

The so-called general extension programs being carried out on the government side, have emphasized food crop production with proper amounts of subsidy each time a new technique is introduced. However, when local Farmers' Associations are economically in good shape, upland crop production such as sweet potatoes, peanuts, and soybeans, etc., is

often entrusted to local Farmers' Associations for implementation. This is one reason why some extension workers in local Farmers' Associations considered themselves as engaged in both educational and general type of extension programs. The same inclination can be found in government extension workers as the result of being influenced by the educational extension program in the past 15 years. They adopted some educational principles in carrying out their daily extension activities so that some of them, although not many, regarded themselves as being engaged in both educational and general extension work. At present, the boundary between the two is quite nebulous at township levels where extension workers are in charge of implementing extension programs and making daily contacts with farmers.

The differences between the general and educational programs are three-fold:[39]

(1) general extension is concerned with increasing agricultural production while the broad objective of educational extension aims at building the people, with the conviction that productivity will increase to the extent that farmers are capable and willing to dedicate themselves to the betterment of their livelihood;

(2) hence general extension work subsidizes farmers to do the job, while educational extension helps the farmers make best use of their own resources, and finally;

(3) educational extension works with farmers both individually and in groups on a somewhat permanent basis, whereas general extension works more on a temporary project basis.

Functional and Dysfunctional Considerations

The Provincial Department of Agriculture and Forestry is the highest agricultural policy-making body in the Province and is

administratively involved in two parallel extension programs which operate side by side from the provincial level down to the township level.

On the government side, or general type of extension, the work is carried out by the technical divisions of the Department of Agriculture and Forestry through the Reconstruction Bureau of Hsien or City Governments at the hsien or city level, to the Agricultural Divisions of Public Offices at the township level. The Provincial Government controls the performance at each level regarding their relationships and responsibilities.

On the other hand, the educational type of extension programs are carried on through the Farmers' Association extension offices at the three corresponding levels based on the contract made each year between the Provincial Department of Agriculture and Forestry and the Provincial Farmers' Association. Under this cooperative relationship, the government agencies, at three levels, provide financial and technical assistance to the corresponding level of Farmers' Associations on a yearly basis.

However, the Provincial Regulations governing extension work are not a law and the cooperative extension educational program is carried out on the contract basis each year. The funds and personnel assigned by the government are oftentimes affected by the financial capability and the quality of the relationships between the two agencies. This is one of the weaknesses in the present extension educational program.

The National Government is now working hard to get an extension law which will legalize the existence of the extension educational

program and specify the funds to be made available and the responsibilities of the different agencies. By passing the law, the status of the cooperative extension educational program in Taiwan could be very much improved. It would be more able to carry out purely educational programs.

Another weakness of the current extension program is that the administrative and financial autonomy of the three levels of Farmers' Associations make supervision of higher over lower associations nominal. Actually, the Farmers' Associations are administratively independent of the government offices at all levels which makes effective supervision non-existent. This inclination is more evident at the hsien and township levels than at the provincial.

The advantages and disadvantages of carrying the cooperative extension educational programs through the Farmers' Associations have been discussed by many governmental officials for a long time.

Advantages cited are:[40]

(1) the Farmers' Associations have more flexibility than the government in appointing new personnel for extension work,

(2) the Farmers' Associations are close to the farm people and are under obligation to serve them. The Farmers' Associations operate in a down-to-earth farming atmosphere,

(3) the Farmers' Associations are authorized to collect an extension fee, which can help a great deal in solving the vital problem of financing extension programs,

(4) the Farmers' Association operation avoids possible interagency conflicts which might occur if the program was assigned to a government agency.

The disadvantages often cited are:

(1) lack of permanent civil service status is a handicap in employing good Farmers' Association personnel, since they may be shifted with changes in Farmers' Association management,

(2) the Farmers' Associations are under government supervision, and it is possible that if a local government official did not like the local Farmers' Association manager, the program might be adversely affected,

(3) the Farmers' Associations are more sensitive than the government to fluctuations in economic conditions of farmers and this might unfavorably affect the financing of the program,

(4) the local Farmers' Association manager might use extension personnel to perform non-educational functions of the Farmers' Associations.

Most of the problems, if not all, enumerated could be solved by an appropriate extension law. Even though there are two different extension channels in rural Taiwan, they are distinct in two respects:[41]

(1) on the government side the line of authority is clearly pronounced, while the Farmers' Associations at all levels are autonomous with no hierarchical exercise of authority; and

(2) the government agricultural offices perform functions more administrative and regulatory in nature and are not so actively engaged in disseminating farm information than the Farmers' Association offices. However, in both channels, the higher the office rank, the more indirect its involvement in the dissemination function is likely to be.

Information Development and Flow Through the System

In Taiwan, research and extension programs are carried out by two independent organizations effectively linked together by the

Provincial Department of Agriculture and Forestry. All research findings made by Research Institutes and District Agricultural Improvement Stations have to be sent to the Provincial Department of Agriculture and Forestry for final approval before disseminating them to local farmers. When a decision is made to release the research findings, the Extension Division of the Department prepares extension educational guidelines and related educational materials including leaflets, pamphlets, and audio-visual aids.

The Farmers' Association acts as the executing agency of the extension educational programs in disseminating farm information and also in assisting farmers to solve farm problems. Colleges of Agriculture are not directly involved in the extension work as in the United States. However, the colleges help train extension workers in both induction and in-service training.

Seven District Agricultural Improvement Stations are in charge of practical research and also help extension workers solve local farm problems. Officially, so far, no subject-matter specialist is designated to work in the District Agricultural Improvement Stations.

Extension Educational Advisory Committees are organized at each level (provincial, hsien, and township) to cooperate with both government agencies and Farmers' Associations on budgetary and policy matters with respect to the cooperative educational programs. These committees, consisting usually of outstanding farmers and representatives of public and private agencies concerned with education, finance, agricultural development, and research, are generally headed by the chief of the government at each level. The Village Committee is generally convened by the chief of the small agricultural unit, a grass roots organ of the Farmers' Associations.

"General extension" programs, on the other hand, are entirely planned by the General Crop Division and the Special Crop Division of the Provincial Department of Agriculture and Forestry after the innovations to be released are finally approved by the Provincial Program Evaluation Committee. Approval extends to the content of new technical methods, the allocation of demonstration plots, specifications for establishing them, and the amount of subsidy to be provided. The programs are then mostly carried out through Hsien Governments and township Public Offices to the farmers' land. Demonstration plots and related activities most characterize this type of extension program. The current extension organizations in Taiwan are shown in Figure 2.

III. RATIONALE FOR THIS STUDY

In terms of the present study it is quite interesting to examine and compare how the extension workers engaged in the two types of extension programs, viewed extension activities, used different sources of farm information, and perhaps, engaged in different communication behavior in carrying out their programs.

As the characteristics of extension workers in the township level have been well analyzed, it is the purpose of this study to investigate the character differences of extension supervisors working in Hsien Governments and Hsien Farmers' Associations and to determine their different views and communication behaviors in the farm information dissemination system.

Hsien governments and Hsien Farmers' Associations act as intermediaries between the provincial and the township extension agencies; they are linking bridges between the two agencies. Oftentimes they also

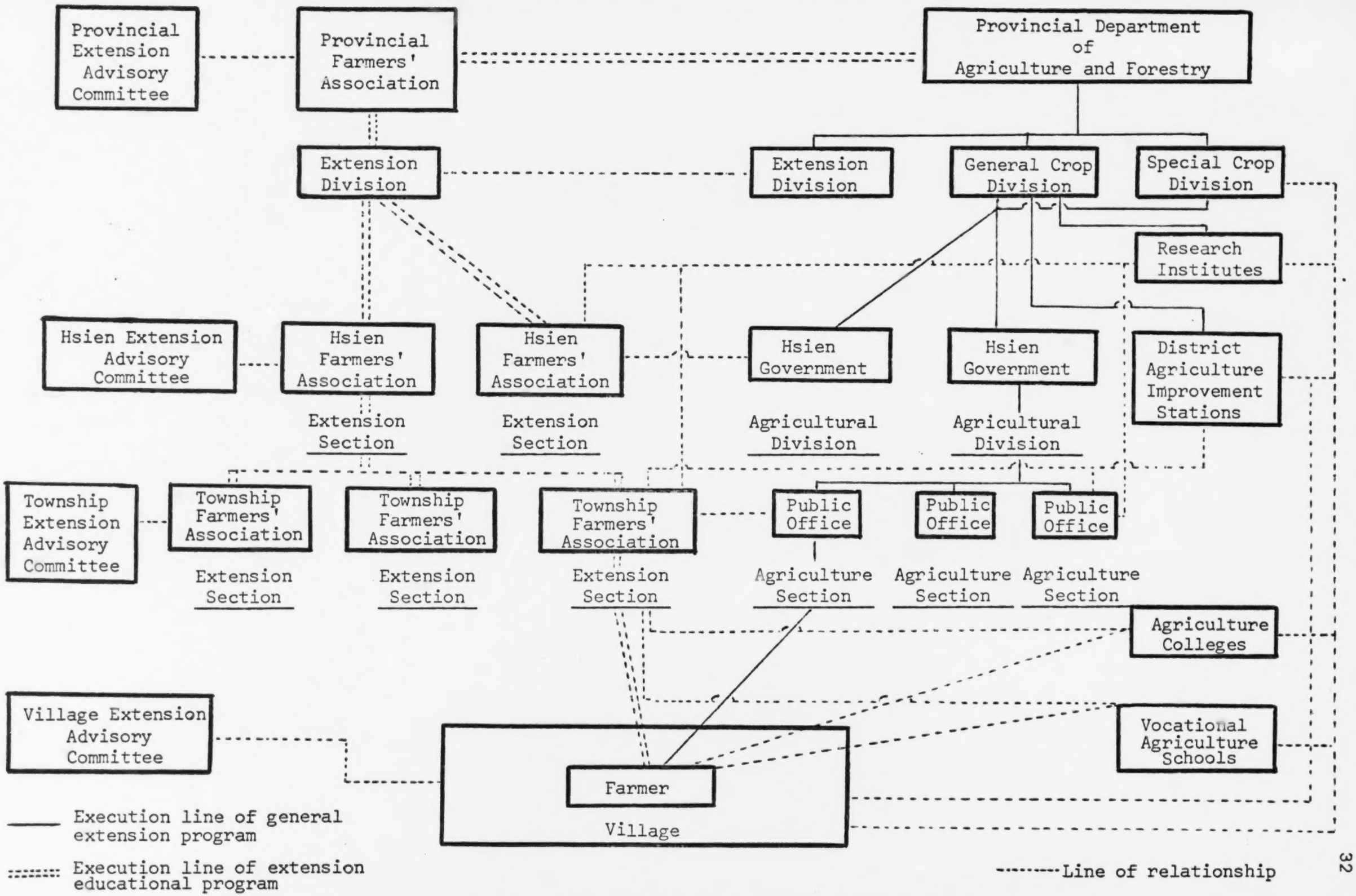

Figure 2. Taiwan Agricultural Extension Organization Chart

act in a supervisory capacity. Accordingly, supervisors' views and attitudes toward extension programs might indirectly affect the quality and performance of extension programs at the township level.

CHAPTER IV. SCOPE OF THE STUDY AND METHODOLOGY

I. WHY TAIWAN

Continuous increases in agricultural productivity in the past fifteen years have helped Taiwan achieve a high rate of economic growth. This remarkable rapid economic growth made it possible for Taiwan to be one of the nations to which United States economic aid was terminated. It is probably the only developing country that has been able to produce enough food for a rapidly expanding population at home, and a sizable surplus to sell abroad.[42]

Christensen stated that "Taiwan's experience in achieving large gains in agricultural productivity should be of interest to many other developing countries because they share many points of similarity. Taiwan has many unique points in its development that might be adopted or adapted by other countries."[43]

This favorable situation has attracted many economists and rural sociologists to make further studies trying to find out what the leading factors were in Taiwan's success in achieving such a remarkable economic growth.

The factors which contributed to the development might be manifold. However, the high level of productivity was achieved mainly by the introduction of superior crop varieties, improved irrigation facilities, increased multiple cropping, more effective control of diseases and pests, increased use of fertilizer, and shifting land to labor-intensive crops that have a high productive value per hectare.[44]

One of the factors in the remarkable achievements was surely the success in developing and disseminating scientific farm information.

However, the system that has worked so well and has been successful in educating farm people is quite different from that of the United States. This has provided an opportunity to cross-culturally test the validity of some of the diffusion research findings in the United States.

It was for these general reasons the "Taiwan Agricultural Diffusion Study" was initiated in 1966 by Drs. Herbert F. Lionberger and H. C. Chang. In addition, it was hoped that the substantive findings derived from the study would provide a useful knowledge base for the Agricultural Extension Department of the National Taiwan University, the extension staff of the Provincial Department of Agriculture and Forestry and the Sino-American Joint Commission on Rural Reconstruction in carrying out their agency assignments or in stimulating related researches.[45]

II. THE STUDY AREA

The province of Taiwan is composed of sixteen hsiens (counties) and four municipalities. The area where the whole research was conducted comprises the twelve hsiens along the west coast of Taiwan. (See Figure 3). The area was the home of 85 percent of the total population in 1967, occupying proportionately 85 percent of the cultivated land area of the province. Agricultural production in this area was also similar to, or in some cases slightly better than, that of Taiwan as a whole in the per hectare yield for selected crops.

Figure 3

MAP OF STUDY AREA IN TAIWAN
(delineated by heavy dark line)

III. THE INTERVIEW SCHEDULES AND INTERVIEWING

In order to obtain a comprehensive picture of the farm information developing and disseminating system, a set of six interview schedules were developed at the University of Missouri and in Taiwan. These were designed to interview the following:

Schedule I - farmers,

Schedule II - township extension workers,

Schedule III - township Farmers' Association general managers and public office chiefs, and extension supervisors in Farmers' Associations and government offices at hsien and provincial levels,

Schedule IV - administrators in research institutes and improvement stations,

Schedule V - agricultural technicians in research institutes and improvement stations,

Schedule VI - mass media agents, newspapers, and broadcasting stations.

Only the data from the hsien supervisors' interview (Schedule III) were used for the study herein reported. Information was obtained about the job perception of the hsien extension supervisors, their role performance, the source of information they used and their communication behavior in carrying out their respective work roles. A copy of the schedule is attached in Appendix I.

Interviewing with the hsien supervisors began in September, 1966. Two college graduates and two vocational agricultural school teachers did the interviewing after intensive individual instruction on interviewing procedures and requirements, and practice under supervision.[46]

IV. FIELD PROCEDURES

A series of legitimating steps were taken before the interview was officially begun.[47] First, the Joint Commission on Rural Reconstruction sent requests to the Provincial Farmers' Association and the Provincial Department of Agriculture and Forestry in an effort to obtain the necessary support. Second, the latter in turn notified their subordinate units requesting their cooperation. Third, H. C. Chang visited the Farmers' Associations and government offices at the hsien level in an effort to answer questions that might arise about the study and to obtain a complete and up-to-date list of names of extension workers from which samples could be selected.

Interviews were arranged by a jointly signed letter by the College of Agriculture of the National Taiwan University, the Provincial Department of Agriculture and Forestry, and the Joint Commission on Rural Reconstruction. Appointments were made one week in advance. When the respondents selected were not available at the scheduled time, arrangements were made for a second appointment.

V. SAMPLING AND SAMPLE SIZE

Respondents were selected at random from a name list containing all possible respondents. Only extension workers who were working in the Agricultural Division and the Livestock Division of the Reconstruction Bureau of Hsien Governments and those extension supervisors in the Farm Section of Hsien Farmers' Associations were included in the study.

A total of 50 hsien supervisors working in Hsien Governments were randomly selected from among 286 hsien supervisors to represent the

people engaged in the general type of extension, and 23 farm extension supervisors were selected from among 25 Hsien Farmers' Association supervisors to represent those engaged in the educational extension program. This included three who were assigned by the Hsien Government to work at the corresponding Hsien Farmers' Association. Since the sample was too small, they were regarded as part of the Farmers' Association supervisors.

The sample distribution by hsien were as follows:

	Number of Supervisors selected from:		
	Agricultural Division of Hsien Government	Livestock Division of Hsien Government	Farm Section of Hsien Farmers' Association
Taipei Hsien	2	2	2
Taoyuen Hsien	2	2	1
Hsinchu Hsien	3	2	2
Miaoli Hsien	2	2	2
Taichung Hsien	2	2	2
Nantou Hsien	2	2	2
Changhwa Hsien	2	2	2
Yunlin Hsien	2	2	2
Chiayi Hsien	2	2	2
Tainan Hsien	3	2	2
Kaohsiung Hsien	2	2	2
Pingtung Hsien	2	2	2
Total	26	24	23

VI. DATA PROCESSING

Schedule editing was done in Taiwan. The schedules were then shipped back to the University of Missouri in May, 1967. Further

processing, i.e., clearing records, coding, and card punching, was done there under the direction of Drs. Lionberger and Chang.

Statistics used in this part of the study are mainly confined to percentages, means, and mediums reported in contingency tables.

CHAPTER V. THE HSIEN EXTENSION SUPERVISOR POSITION

I. PROFESSIONAL CHARACTERISTICS OF HSIEN SUPERVISORS

Two different farm information dissemination channels in Taiwan have existed since a "new look" of the educational extension program was introduced to Farmers' Associations after World War II. Differences in the characteristics of hsien supervisors, their role perceptions, and performance are noted in this chapter.

Length of Time in Occupation

Seventy percent of hsien government supervisors had been in their present position for more than 15 years, while none of the hsien Farmers' Association supervisors had been employed that long. On the other hand, about one-third (34.8 percent) of hsien Farmers' Association supervisors had been working as extension supervisors for less than five years when the interview was conducted, while only 4 percent of hsien government supervisors belonged to this category. (See Table I).

In addition, 40 percent of hsien government supervisors had been engaged in extension work for more than 25 years while only 13 percent of hsien Farmers' Association supervisors had served that long. Moreover, the percentage for those who were in extension programs less than 10 years was 39.1 for hsien Farmers' Association supervisors while that of hsien government supervisors was only 12. The medium year in extension work for hsien government supervisors was 22.9 percent, while that of hsien Farmers' Association supervisors was only 14.4. (See Table II).

These facts indicate the greater stability of tenure in the government side than in the Farmers' Association side. The same

TABLE I

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND YEARS IN PRESENT POSITION

Years in Present Position	Total % (N=73)	Position Location: Hsien Farmers' Association % (N=23)	Position Location: Hsien Government % (N=50)
Total	100.0	100.0	100.0
Less than 5	13.7	34.8	4.0
5 - 9	20.6	39.1	12.0
10 - 15	17.8	26.1	14.0
Over 15	47.9	0.0	70.0

TABLE II

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND YEARS IN EXTENSION WORK

Years in Extension Work	Total % (N=73)	Position Location: Hsien Farmers' Association % (N=23)	Position Location: Hsien Government % (N=50)
Total	100.0	100.0	100.0
1 - 10	20.6	39.1	12.0
11 - 25	47.9	47.9	48.0
Over 25	31.5	13.0	40.0
Median	20.2	14.4	22.9

inclination was found for township extension advisors working in township Public Offices and township Farmers' Associations.

Stability of Occupational Tenure

The stability of tenure could be further indicated by the total number of hsien supervisors who left their jobs within three years previous to when the interview was conducted.

Sixteen out of 286 hsien government supervisors (5.5 percent) were reported to have left the hsien government while 25 out of 125 hsien Farmers' Association supervisors (20 percent) were so reported. Among those who left their jobs, 80 percent of the hsien Farmers' Association supervisors was due to resignation while the same reason for hsien government supervisors was only 12.5 percent. Also hsien government supervisors were quite often transferred to work in the other departments within the organization (43.8 percent). This cross-transfer was not very common for hsien Farmers' Association supervisors (12.0 percent). (See Table III).

The main cause of this difference might be attributed to the differences in personnel practices in the two hsien offices. Hsien Farmers' Association supervisors are hired by the general manager of the hsien Farmers' Association who is appointed by the Farmers' Association Board of Directors. Quite often a newly appointed general manager also changes his staff members as well. Perhaps others not yet dismissed are quick to accept other employment that offers more security. On the other hand, hsien government officials are appointed by the government. For ten years only those who passed the civil examination could qualify to work in the government agencies. Magistrates of the Hsien Government

TABLE III

NUMBER OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND REASONS FOR LEAVING THE ORGANIZATION

Reasons for Leaving	Total	Position Location	
		Hsien Farmers' Association*	Hsien Government**
Total	41	25	16
Temporary transfer to other departments within the organization	0	0	0
Permanent transfer to other departments within the organization	10	3	7
Resignation	22	20	2
Dismissal	3	0	3
Other reasons (retirement, decease)	6	2	4

* Total number of hsien Farmers' Association supervisors was 125.

** Total number of hsien government supervisors was 286.

cannot dismiss staff members unless they have committed a crime. Thus, once appointed, the tenure of hsien government extension supervisors is much more secure than supervisors employed by the hsien Farmers' Associations.

Perceived Nature of Work

When respondents were asked about the nature of their work, a majority of hsien government supervisors (66 percent) identified themselves with general extension programs. Only 26.1 percent of hsien Farmers' Association supervisors reported they were in this category.

On the converse, a greater portion of hsien Farmers' Association supervisors (56.5 percent) identified themselves with educational extension compared to 6.0 percent of hsien government supervisors. Twenty-six percent of hsien government supervisors and 17.4 percent of hsien Farmers' Association supervisors thought they were involved in both general and educational extension programs. (See Table IV). This indicates that some hsien government supervisors have adopted or identified with the educational approach in their extension activities.

A considerable number of hsien Farmers' Association supervisors (26 percent) viewed themselves as working for the general extension program. This is probably due to the fact that they had been often asked by hsien government supervisors to help carry out general extension programs when the latter were tied up with regulatory work.

Before the educational extension program was officially introduced to the island in 1953, Farmers' Associations were also engaged in general extension programs and had worked as a subordinate agency of the government in implementing extension programs. This relationship has persisted in a considerable degree even after the educational

TABLE IV

PERCENT OF SUPERVISORS IN HSIEN FARMERS' ASSOCIATIONS AND HSIEN GOVERNMENTS CLASSIFIED BY PERCEPTION AS TO THE NATURE OF THEIR WORK

Perception of Work Role	Total % (N=73)	Position Location: Hsien Farmers' Association % (N=23)	Position Location: Hsien Government % (N=50)
Total	100.0	100.0	100.0
General extension workers	53.4	26.1	66.0
Extension education workers	21.9	56.5	6.0
Both	23.3	17.4	26.0
Don't know	1.4	0.0	2.0

extension program was introduced. This deeply influences the views held of the nature of extension programs by hsien Farmers' Association supervisors.

When a new program is introduced to parallel or perhaps replace an old one, some duplication of effort for a period of time may occur before the new system can be firmly established.

Orientation to Work

When asked to think of extension work as a whole, hsien Farmers' Association supervisors tended to identify with the overall extension system (56.5 percent) while hsien government supervisors thought of themselves as being a part of their employing organization (76.0 percent). (See Table V). In other words, hsien Farmers' Association supervisors were more program oriented while hsien government supervisors were much more organization oriented.

This may be the result of different procedures having been adopted by general and educational extension work in program planning. Hsien Farmers' Association supervisors participated fully in all program planning related to the implementation of new projects. Democratic procedures employed in the educational extension program of the hsien Farmers' Associations have further contributed to a strong feeling that they are a part of the farm information dissemination system and are responsible for developing the capacity of farmers. On the contrary, the programs for general extension work are usually of a piecemeal nature. Generally, the provincial staff plans the program which is then transmitted down to hsien government supervisors and township public office advisors for implementation. With government extension operating

TABLE V

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND OWN MAJOR SYSTEM IDENTIFICATION

Major System Identification	Total % (N=73)	Hsien Farmers' Association % (N=23)	Hsien Government % (N=50)
Total	100.0	100.0	100.0
Mainly the overall extension organization	28.8	56.5	16.0
Mainly own hiring organization	63.0	34.8	76.0
Mainly a representative of farmers	6.8	8.7	6.0
Not determined	1.4	0.0	2.0

on an hierarchy basis, hsien government supervisors have never been involved in the program planning process. Instead, they have followed the instructions or orders given by the chief of the organization for implementation. This bureaucratic "set-up" has built a feeling among hsien government supervisors that they are responsible to their chief or own organization rather than to the overall extension dissemination effort or system. This difference of involvement in extension programs and program planning has surely influenced the views held and the performances of two types of hsien supervisors toward many extension activities.

II. ROLES EMPHASIZED BY HSIEN SUPERVISORS

There are many extension activities and responsibilities that are supposed to be carried out by hsien supervisors. This section is concerned with the relative emphasis placed on their various responsibilities or roles.

First-Most and Second-Most Day to Day Activities Emphasized

All respondents were accordingly asked to indicate first-most and second-most day to day activities. These are enumerated in Table VI. Their answers showed there was a distinctive difference of emphases that each kind of extension supervisor placed on daily extension activities.

The first-most activities emphasized by hsien Farmers' Association supervisors in order were: (1) planning and conducting hsien events and meetings (26.1 percent), (2) helping develop extension work plans (17.4 percent), (3) training township extension advisors (17.4 percent), and (4) training local leaders (17.4 percent).

TABLE VI

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND RELATIVE EMPHASIS ASSIGNED TO EXTENSION ACTIVITIES

Extension Activities	Total Emphasis Assigned		Emphasis Assigned by Hsien Farmers' Association Extension Supervisors		Emphasis Assigned by Hsien Government Extension Supervisors	
	Most % (N=73)	2nd Most % (N=73)	Most % (N=23)	2nd Most % (N=23)	Most % (N=50)	2nd Most % (N=50)
Total	100.0	100.0	100.0	100.0	100.0	100.0
Farm and home visits	13.7	11.0	8.7	4.3	16.0	14.0
Interpreting extension policies	11.0	15.1	4.3	8.7	14.0	18.0
Planning or conducting hsien or provincial events or meetings	21.9	12.3	26.1	13.1	20.0	12.0
Coordinating township extension work within hsien	20.5	24.7	8.7	21.8	26.0	26.0
Help develop extension work plans	9.6	16.3	17.4	17.4	6.0	16.0
Training township extension advisors	11.0	13.7	17.4	26.1	8.0	8.0
Training local leaders	6.8	1.4	17.4	4.3	2.0	0.0
Evaluating township extension work	0.0	2.7	0.0	0.0	0.0	4.0
Other	4.1	1.4	0.0	4.3	6.0	0.0
Not ascertained	1.4	1.4	0.0	0.0	2.0	2.0

For hsien government supervisors, coordinating township extension work within the hsien (26.0 percent) was ranked at the top of the list of the first-most activities emphasized. Planning and conducting hsien events and meetings (20.0 percent), farm and home visits (16.0 percent), and interpreting extension policies (14.0 percent) followed in the sequence. (See Table VI).

It is evident that hsien Farmers' Association supervisors emphasized development of extension plans, and training advisors and local leaders. Cooperation and coordination is always a basic principle for educational extension programs. They help plan extension programs and train local leaders so that they, in turn, can be responsible for more extension activities. Hsien Farmers' Association supervisors perceive their responsibilities to be to supervise, to help, and to train township extension advisors; also, to train local leaders rather than to directly participate in the implementation of local extension programs.

On the contrary, hsien government supervisors emphasized coordinating extension work instead of helping develop extension programs. They also emphasized interpreting extension policies, and conducting home and farm visits, rather than training township advisors and local leaders. In other words, hsien government supervisors paid little attention to program planning and people development. They were involved directly in implementing extension programs at the township level.

These differences in program emphasis in actual role performance indicate that hsien Farmers' Association supervisors are more developmental oriented while hsien government supervisors are authority oriented in their role performance. This inclination was further supported by the supervisors' perceptions of their responsibilities.

Perception of Own Major Responsibilities

A majority of hsien Farmers' Association supervisors (82.7 per cent) perceived themselves as extension advisement workers while most of the hsien government supervisors (82.0 percent) regarded themselves as extension administrators. (See Table VII). The different approaches employed in executing extension programs might be the main cause of this result. In the educational extension program, hsien Farmers' Association supervisors are fully informed and oriented by the provincial agencies with respect to their roles, importance of involving people in program planning, and development of local leaders. In addition to general subject matter training they receive every year, they have a chance every three years to enroll in training on extension methods.[48] On the contrary, general extension work has mainly depended on their hierarchical relationship in carrying on extension programs. Hsien government supervisors are thus more administrative oriented. So far as the writer knows, no training such as program planning and extension methods, has ever been given to hsien government supervisors.

TABLE VII

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND PERCEPTION OF OWN MAJOR RESPONSIBILITY

Major Responsibilities or Roles	Total % (N=73)	Position Location: Hsien Farmers' Association Supervisors % (N=23)	Position Location: Hsien Government Supervisors % (N=50)
Total	100.0*	100.0*	100.0*
Subject matter specialists	42.5	30.4	48.0
Extension advisement	71.3	82.7	66.0
Extension administration	82.2	82.6	82.0

* Percents add to more than 100 because multiple responses were given and accepted.

CHAPTER VI. VIEWS HELD OF AGRICULTURAL EXTENSION ACTIVITIES BY HSIEN SUPERVISORS

Many social psychologists have pointed out that people with different backgrounds, culture, and orientation, yield different attitudes and views toward a subject.[49, 50] Hsien Farmers' Association supervisors and hsien government supervisors having been exposed to different extension programs would be expected to have different views about extension work. This chapter is concerned with views held of extension activities by hsien supervisors.

I. VIEWS HELD OF AGRICULTURAL EXTENSION OBJECTIVES AND TOWNSHIP EXTENSION ACTIVITIES BY HSIEN SUPERVISORS

First and Second-Most Emphasis the Supervisors Placed on the Seven Extension Objectives

One good indicator of how hsien Farmers' Association supervisors and hsien government supervisors perceive extension programs, is the views they hold of agricultural extension objectives. Respondents were asked to indicate the most and second-most emphasis they would like to assign to the seven extension objectives shown by interviewers.

Hsien government supervisors thought teaching farmers improved practices, and helping to carry out government plans, were most important. On the contrary, hsien Farmers' Association supervisors distributed first importance rating somewhat more widely; 47.6 percent said "teach farmers improved practices" was most important; 21.8 percent said "develop greater competence in farming"; 8.7 percent said "develop local leadership"; and another 8.7 percent said "help improve living conditions

of farm people". (See Table VIII). Thus, hsien government supervisors saw extension objectives more in terms of technical guidance than hsien Farmers' Association supervisors. They were also inclined to view extension work as a tool to carry out government production plans. On the other hand, as the above has shown, hsien Farmers' Association supervisors tended to view extension work mainly as a means of inculcating knowledge, skills, and attitudes in people.

In a sense, these differences in views held reflect traditional and modern ways of thinking. As Merton indicated, this might be derived from the relative number of contacts they have had with the outside sources.[51] Hsien Farmers' Association supervisors were more exposed to different kinds of training than those in the hsien government.

Perceived Actual and Ideal Extension Activities Implemented by Township Extension Advisors

With respect to perceived actual and ideal emphasis of extension activities implemented by township extension advisors, both hsien Farmers' Association supervisors and hsien government supervisors were quite satisfied with the relative emphasis they thought township extension workers placed on the various activities. Both hsien Farmers' Association supervisors and hsien government supervisors viewed the ideal order of emphasis for township extension programs in the following order of importance:

(1) farm and home visits,

(2) working with people in groups and meetings,

(3) conducting contests, demonstrations, and tours,

(4) answering farmers' questions in the office, and

(5) helping in supply and marketing problems.

TABLE VIII

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND RELATIVE IMPORTANCE ATTACHED TO EXTENSION OBJECTIVES

Extension Objectives	Total Importance Rating		Importance Assigned by Hsien Farmers' Association		Importance Assigned by Hsien Government	
	Most % (N=73)	2nd Most % (N=73)	Most % (N=23)	2nd Most % (N=23)	Most % (N=50)	2nd Most % (N=50)
Total	100.0	100.0	100.0	100.0	100.0	100.0
Develop greater competence in farming	13.7	8.2	21.8	17.4	10.0	4.0
Teach farmers improved practices	58.9	20.5	47.6	13.0	64.0	24.0
Develop local leadership	6.9	6.8	8.7	13.0	6.0	4.0
Help make plans for farming enterprise	2.7	6.8	4.4	13.0	2.0	4.0
Help carry out government production plans	12.4	34.4	4.4	21.8	16.0	40.0
Help improve living conditions of farm people	2.7	16.5	8.7	17.4	0.0	16.0
Help farmers obtain supplies and services	2.7	6.8	4.4	4.4	2.0	8.0

However, there was still a tendency for hsien government supervisors to emphasize farm and home visits somewhat more, and hsien Farmers' Association supervisors, working with people in groups and meetings. (See Table IX and X).

Recommended Methods of Resoluting Conflicting Views Held Between Local Chiefs and Supervisors

Owing to different procedures used in educational and general extension activities, there was a rather distinct difference in views about what action the extension workers should take in the case of conflicting views between local office chiefs and supervisors.

A majority of hsien government supervisors (68.0 percent) thought that extension workers should follow what hsien or provincial supervisors demanded in the case of conflicting views. However, hsien Farmers' Association supervisors (52.2 percent) thought that extension workers should follow what local office chiefs demanded. (See Table XI). This, of course, is more in line with a view of extension, dedicated to developing the managerial capacities of farm people. When too much authority is employed in the implementation of programs, it is hard to develop responsibility in people for their own programs.

Township office heads were perceived by both respondents (68.6 percent of hsien Farmers' Association supervisors and 60.0 percent of hsien government supervisors) as having the most decisive influence on the work of the township extension workers. Only 13.0 percent of hsien Farmers' Association supervisors and 6.0 percent of hsien government supervisors saw themselves as being most influential.

Hsien Farmers' Association supervisors had much better relationships with township Farmers' Association advisors, and their influence

TABLE IX

PERCENT OF HSIEN FARMERS' ASSOCIATION SUPERVISORS CLASSIFIED BY OWN PERCEPTIONS OF ACTUAL AND IDEAL EMPHASIS PLACED ON EXTENSION ADVISERS' ACTIVITIES

Perception of Respondent	Total (N=23)	Order of Emphasis					Median
		1	2	3	4	5	
ACTUAL ORDER OF EMPHASIS							
Farm and home visits	100.0	60.8	17.4	11.8	0.0	0.0	0.82
Working with farmers in groups and meetings	100.0	26.1	47.8	26.1	0.0	0.0	1.50
Answering farmers' questions in own office	100.0	0.0	21.7	17.4	38.2	22.7	3.28
Contests, demonstrations, tours, etc.	100.0	8.7	13.0	31.4	38.2	8.7	2.56
Help farmers obtain supplies and market produce	100.0	4.3	0.0	4.3	21.7	69.7	4.30
IDEAL ORDER OF EMPHASIS							
Farm and home visits	100.0	52.3	30.4	13.0	4.3	0.0	0.36
Working with farmers in groups and meetings	100.0	34.8	43.5	13.0	8.7	0.0	1.35
Answering farmers' questions in own office	100.0	0.0	4.3	13.0	56.6	26.1	3.58
Contests, demonstrations, tours, etc.	100.0	8.7	17.4	43.5	21.7	8.7	2.55
Help farmers obtain supplies and market produce	100.0	4.3	4.3	17.4	8.7	65.3	4.23

TABLE X

PERCENT OF HSIEN GOVERNMENT SUPERVISORS CLASSIFIED BY OWN PERCEPTIONS OF ACTUAL AND IDEAL EMPHASIS PLACED ON EXTENSION ADVISERS' ACTIVITIES

Perception of Respondent	Total (N=50)	Order of Emphasis					Median
		1	2	3	4	5	
ACTUAL ORDER OF EMPHASIS							
Farm and home visits	100.0	56.0	12.0	16.0	14.0	2.0	0.89
Working with farmers in groups and meetings	100.0	24.0	42.0	24.0	8.0	2.0	1.60
Answering farmers' questions in own office	100.0	12.0	14.0	16.0	32.0	26.0	3.25
Contests, demonstrations, tours, etc.	100.0	8.0	28.0	38.0	18.0	8.0	2.37
Help farmers obtain supplies and market produce	100.0	0.0	4.0	6.0	28.0	62.0	4.18
IDEAL ORDER OF EMPHASIS							
Farm and home visits	100.0	74.0	6.0	18.0	0.0	2.0	0.68
Working with farmers in groups and meetings	100.0	12.0	70.0	14.0	4.0	0.0	1.54
Answering farmers' questions in own office	100.0	2.0	2.0	20.0	36.0	40.0	3.72
Contests, demonstrations, tours, etc.	100.0	10.0	22.0	44.0	10.0	14.0	2.41
Help farmers obtain supplies and market produce	100.0	2.0	0.0	4.0	50.0	44.0	3.88

TABLE XI

PERCENT OF SUPERVISORS IN HSIEN FARMERS' ASSOCIATIONS AND HSIEN GOVERNMENTS CLASSIFIED BY RECOMMENDED METHOD OF CONFLICT RESOLUTION BETWEEN PROVINCIAL AND IMMEDIATE SUPERVISORS

Method of Conflict Resolution	Total % (N=73)	Position Location: Hsien Farmers' Association % (N=23)	Position Location: Hsien Government % (N=50)
Total	100.0	100.0	100.0
Do what you or hsien provincial supervisor demands	58.4	26.1	68.0
Do what the immediate supervisor demands	27.4	52.2	16.0
Neglect both and do what they think is appropriate	1.4	0.0	2.0
Delay their action until a solution is worked out	16.4	21.7	14.0
Don't know	0.0	0.0	0.0

on advisors was perceived even greater than the advisor's immediate section chief. (See Table XII). This revealed the fact that extension workers in the three levels of Farmers' Associations were more program oriented than organization oriented. On the contrary, in general extension work, township public office advisors were influenced much more by their immediate section chief than by the hsien government supervisors. (See Table XII). It could be concluded that the relationship between hsien government supervisors and township public advisors was not as intimate as that of hsien Farmers' Association supervisors with township Farmers' Association advisors. Township public office advisors were much more organization oriented than township Farmers' Association advisors.

II. VIEWS HELD OF THE ROLES OF AGRICULTURAL TECHNICIANS BY HSIEN SUPERVISORS

Who the Agricultural Technician (Subject-Matter Specialist) Is

In Taiwan, there are three types of organizations which are directly involved in farm information development. Those are the Agricultural Research Institutes, District Agricultural Improvement Stations, and Colleges of Agriculture.

There are ten research institutes and their branch stations, located generally where the physical conditions are most suited for conducting research on their specialized subjects (crops or livestock).

There are seven District Agricultural Improvement Stations operating on a regional or district basis. (Generally, one district consists of three to four counties). Their activities are concerned with local problems of agriculture.

TABLE XII

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND PEOPLE BELIEVED TO HAVE MOST DECISIVE INFLUENCE ON TOWNSHIP EXTENSION ADVISORS

Persons of Influence	Total % (N=73)	Hsien Farmers' Association Supervisors % (N=23)	Hsien Government Supervisors % (N=50)
Total	100.0	100.0	100.0
Farmers	5.5	0.0	8.0
Extension co-workers	4.1	8.7	2.0
Township office heads	63.0	68.6	60.0
Head of extension reconstruction section	17.8	8.7	22.0
Hsien supervisors	8.2	13.0	6.0
Provincial level persons	1.4	0.0	2.0

The two agricultural colleges, one national and one provincial operated, are closely associated with the activities of the research institutes and district agricultural improvement stations. However, they are not directly involved in the agricultural extension system in Taiwan.

According to the Regulation Governing the Organization of Research Institutes[52] and District Agricultural Improvement Stations,[53] the research institutes are responsible for agricultural research, experiment, and improvement, while district agricultural improvement stations are expected to strengthen regional agricultural research and extension. The main difference of the two is that the research institutes are responsible for carrying on basic researches whereas the district agricultural improvement stations are responsible for carrying out practical researches on a regional basis. In addition, the former has no extension responsibilities while the latter has.

The extension responsibility of the district agricultural improvement stations is defined by the Provincial Department of Agriculture and Forestry as follows:[54]

(1) to call district extension meetings to discuss extension needs in the district,

(2) to help train extension workers and local leaders,

(3) to serve as judges in educational events,

(4) to prepare extension teaching materials such as pamphlets, visual aids, and radio scripts,

(5) to help extension advisors solve technological problems.

Therefore, the agricultural technicians referred to in this section are technicians who work in district agricultural improvement

stations. How their roles are differently perceived and viewed by two types of hsien supervisors is the focus of this section.

What Extension Activities Agricultural Technicians Should Emphasize in Helping Hsien Supervisors

Hsien Farmers' Association supervisors thought that agricultural technicians in improvement stations should emphasize supportive extension related activities, that is, (1) help train extension workers (30.4 percent said most), (2) prepare subject matter pamphlets and leaflets (26.2 percent said most), and (3) prepare or give radio talks and write newspaper articles (21.8 percent said most).

Hsien government supervisors also indicated that agricultural technicians should firstly help train extension workers (34.0 percent said most) and prepare subject matter pamphlets and leaflets (16.0 percent said most), but they did not consider preparing and giving radio talks (only 10 percent said most) as an important job for agricultural technicians (insofar as can be judged from percent rating these activities as most important). Instead, they were more inclined to assign first order importance to conducting demonstrations and tours (14.0 percent said most). A few hsien government supervisors (8.0 percent) thought first importance should be assigned by technicians to visiting farms and homes directly without being requested to do so. While none of the hsien Farmers' Association supervisors took this view. (See Table XIII).

Thus the somewhat more narrow view of extension work held by hsien government supervisors was again indicated. To them extension work seemed to be mostly setting up demonstration plots and conducting

TABLE XIII

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND RELATIVE EMPHASIS ON ACTIVITIES THEY THINK AGRICULTURAL TECHNICIANS SHOULD AND DO PLACE ON HELPING HSIEN EXTENSION SUPERVISORS

Agricultural Technician (Subject-Matter Specialist) Activities	Total Emphasis Assigned		Emphasis Assigned by Hsien Farmers' Association Extension Supervisors		Emphasis Assigned by Hsien Government Extension Supervisors	
	Most % (N=73)	2nd Most % (N=73)	Most % (N=23)	2nd Most % (N=23)	Most % (N=50)	2nd Most % (N=50)
WHAT SUPERVISORS THINK SPECIALISTS SHOULD EMPHASIZE	100.0	100.0	100.0	100.0	100.0	100.0
Visit farms and homes upon invitation	13.7	8.2	13.0	8.7	14.0	8.0
Visit farms and homes directly	5.5	4.1	0.0	4.3	8.0	4.0
Help train extension workers	32.9	16.4	30.4	13.0	34.0	18.0
Help train local leaders	4.1	9.6	4.3	21.8	4.0	4.0
Prepare subject matter pamphlets, leaflets, etc.	19.2	26.0	26.2	26.2	16.0	26.0
Help conduct demonstrations, tours, etc.	6.8	19.2	4.3	4.3	8.0	26.0
Prepare or give radio talks and write newspaper articles	13.7	15.1	21.8	17.4	10.0	14.0
Other	4.1	1.4	0.0	4.3	6.0	0.0
WHAT SUPERVISORS THINK SPECIALISTS DO EMPHASIZE	100.0	100.0	100.0	100.0	100.0	100.0
Visit farms and homes upon invitation	12.3	11.0	8.8	13.0	14.0	10.0
Visit farms and homes directly	5.5	8.2	0.0	0.0	8.0	12.0

TABLE XIII (Continued)

Agricultural Technician (Subject-Matter Specialist) Activities	Total Emphasis Assigned		Emphasis Assigned by Hsien Farmers' Association Extension Supervisors		Emphasis Assigned by Hsien Government Extension Supervisors	
	Most % (N=73)	2nd Most % (N=73)	Most % (N=23)	2nd Most % (N=23)	Most % (N=50)	2nd Most % (N=50)
Help train extension workers	39.7	11.0	39.1	0.0	40.0	16.0
Help train local leaders	6.8	21.9	8.7	34.8	6.0	16.0
Prepare subject matter pamphlets, leaflets, etc.	17.8	20.5	17.4	21.7	18.0	20.0
Help conduct demonstrations, tours, etc.	9.7	13.7	17.4	21.7	8.0	14.0
Prepare or give radio talks and write newspaper articles	8.2	12.3	13.0	13.0	6.0	12.0
Other	0.0	1.4	0.0	4.5	0.0	0.0

tours to publicize those things demonstrated. Perhaps, this is a reason why some placed first importance on visiting farms and homes directly without being invited.

The data seems to further indicate that hsien government supervisors are not well acquainted with mass communication techniques and the importance of local influentials in the diffusion of innovations.[55, 56] On the contrary, hsien Farmers' Association supervisors were very well informed about various kinds of extension methods which resulted in the wide selection of extension techniques. The reader will recall that hsien Farmers' Association supervisors emphasized working with people in groups and meetings, as mentioned in the first section of this chapter. They paid much attention to use of the mass media and development of local leaders.

In regard to how well hsien supervisors thought agricultural technicians had fulfilled their expected roles, hsien Farmers' Association supervisors thought agricultural technicians in improvement stations should prepare more subject-matter pamphlets and leaflets, prepare and give more radio talks, and write more newspaper articles, while hsien government supervisors wanted more help in conducting demonstrations and tours. A feeling of need for this kind of service is again in accord with a view of extension limited to teaching farmers improved farm techniques, while a feeling of need expressed by hsien Farmers' Association supervisors was in line with a broader view of extension, i.e., to improve community life as a whole and to develop local leaders.

What Extension Activities Agricultural Technicians Should Emphasize in Helping Township Advisors

Also, with respect to what kind of help agricultural technicians should render to township extension advisors, different views were found

in the two types of hsien supervisors.

The inferences which follow are based on percents of each rating the indicated services as being of first order importance. Hsien Farmers' Association supervisors said "provide more subject-matter materials" (26.1 percent said most), "help township extension advisors solve technical problems upon request" (21.7 percent said most), and "help train local leaders" (17.4 percent said most). Hsien government supervisors indicated that technicians should help train extension workers first (32.0 percent said most), and then visit farms and homes directly without being requested. (See Table XIV).

The reader is again reminded that township Farmers' Association advisors have been well provided with various kinds of induction trainings, both on subject-matter and extension methods. All township Farmers' Association advisors have at least one chance to participate in this kind of technical training every year.[57] Thus, they are well informed about various kinds of extension methods. Accordingly what hsien Farmers' Association supervisors see as most needed for township Farmers' Association advisors is a continuous supply of subject-matter materials and help them to solve technical difficulties when necessary. By doing so, township Farmers' Association advisors would be able to fully perform their jobs. Township public office advisors, who, on the other hand, have not been provided with systematic extension training were probably an important factor in making hsien government supervisors think that agricultural technicians should help public office advisors conduct demonstrations, tours, and also to visit farms and homes directly without being requested. All this further suggests that general extension work depended very much more directly on agricultural technicians

TABLE XIV

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND RELATIVE EMPHASIS THEY THINK AGRICULTURAL TECHNICIANS SHOULD PLACE ON DESIGNATED ACTIVITIES TO HELP TOWNSHIP EXTENSION ADVISORS

Agricultural Technician (Subject-Matter Specialist) Activities	Total Emphasis Assigned		Emphasis Assigned by Hsien Farmers' Association Extension Supervisors		Emphasis Assigned by Hsien Government Extension Supervisors	
	Most % (N=73)	2nd Most % (N=73)	Most % (N=23)	2nd Most % (N=23)	Most % (N=50)	2nd Most % (N=50)
WHAT HSIEN SUPERVISORS THINK SPECIALISTS SHOULD EMPHASIZE	100.0	100.0	100.0	100.0	100.0	100.0
Visit farms and homes upon request	13.7	4.2	21.7	4.4	10.0	4.0
Visit farms and homes directly	12.3	2.7	0.0	4.4	18.0	2.0
Help train extension workers	27.4	20.5	17.4	13.0	32.0	24.0
Help train local leaders	13.7	21.9	13.0	34.8	14.0	16.0
Prepare subject-matter pamphlets, leaflets, etc.	13.7	19.2	26.1	13.0	8.0	22.0
Help conduct demonstrations, tours, etc.	9.6	16.4	13.0	13.0	8.0	18.0
Prepare or give radio talks and write newspaper articles	8.2	12.4	4.4	13.0	10.0	12.0
Other	1.4	2.7	4.4	4.4	0.0	2.0

in improvement stations for setting up demonstration plots for them than educational extension work. It seemed that without agricultural technicians' assistance, township Public Office advisors would be hard put to perform their duties very well. This might be one reason why hsien government supervisors were more inclined to do farm and home visits by themselves and get involved directly in implementing township extension programs than hsien Farmers' Association supervisors, as indicated in the previous section.

Both hsien Farmers' Association supervisors and hsien government supervisors generally viewed technicians in improvement stations as subject-matter specialists, and those in research institutes as researchers. (See Table XV). This is quite consistent with their official assignment of duties. Yet, it is significant that a sizable proportion of technicians in district improvement stations are seen mainly as subject-matter specialists.

III. VIEWS HELD OF THE AGRICULTURAL EXTENSION ADVISORY COMMITTEES BY HSIEN SUPERVISORS

The Agricultural Extension Advisory Committee was established by the educational extension program to give advice on implementing educational extension programs at the three government levels. Their broad based structure is indicated by the inclination of educational extension to elicit a broad base of cooperation in carrying out their work. The committees are generally composed of representatives from government agencies, Farmers' Associations, People's Assembly, Women's Associations, research institutes, improvement stations, Agricultural and Home Economics Vocational Schools, Sugar Corporation, and outstanding farmers. Membership

TABLE XV

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND WHAT THEY REGARD MAJOR RESPONSIBILITIES OF AGRICULTURAL TECHNICIANS IN RESEARCH INSTITUTES AND IMPROVEMENT STATIONS TO BE

POSITION LOCATION Major Responsibilities	Total % (N=73)	Position Location Hsien Farmers' Association % (N=23)	 Hsien Government % (N=50)
IN IMPROVEMENT STATIONS			
Total	100.0	100.0	100.0
Subject-matter specialists	53.4	60.9	50.0
Researchers	32.9	21.7	38.0
Both	13.7	17.4	12.0
IN RESEARCH INSTITUTES			
Total	100.0	100.0	100.0
Subject-matter specialists	15.1	13.0	16.0
Researchers	69.8	74.0	68.0
Both	15.1	13.0	16.0

ranges from 19 to 21 at the provincial level, 9 to 15 at the hsien level, 7 to 15 at the township level, and 7 to 11 at the village level. At each level the committee is headed by the head of government at that particular level. The general manager of the Farmers' Association at the corresponding level serves as the vice-chairman. According to the "Regulations Governing the Organization of Agricultural Extension Advisory Committees" issued by the Taiwan Provincial Government in 1966,[58] the functions of the committee are defined as follows:

(1) to discuss and approve the agricultural extension plans,

(2) to provide assistance and advice for accelerating extension work,

(3) to raise funds for the jurisdictional extension program,

(4) to promote closer connection and better coordination among different agencies, and

(5) to exercise in other advisory capacities.

It is therefore quite precise that the Agricultural Extension Advisory Committee is particularly organized to promote the educational extension program. Since these committees are officially associated only with Farmers' Association extension work, it might be expected that hsien government supervisors would be less knowledgeable about the function and operation of the advisory committees.

Actual Functions of Hsien Extension Advisory Committees

As predicted, more than one-third of hsien government supervisors (39.0 percent) reported that they did not know the functions of the Hsien Extension Advisory Committee. There was also one hsien Farmers' Association supervisor who reported that he did not know the functions of the committee. (See Table XVI).

TABLE XVI

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND BY FIRST ORDER IMPORTANCE ASSIGNED TO DESIGNATED FUNCTIONS OF HSIEN EXTENSION ADVISORY COMMITTEE; SHOULD AND DO

Extension Advisory Committee Functions	Total		Hsien Farmers' Association Supervisors		Hsien Government Supervisors	
	Do % (N=73)	Should % (N=73)	Do % (N=23)	Should % (N=23)	Do % (N=50)	Should % (N=50)
Total	100.0	100.0	100.0	100.0	100.0	100.0
Evaluate extension work	4.1	6.7	2.1	8.7	5.0	6.0
Approve extension plans and budgets	15.0	13.7	21.8	21.7	12.0	10.0
Get coordination and cooperation from local organizations	18.5	22.6	26.2	28.3	15.0	20.0
Interpret farmers' needs	6.1	3.3	8.6	4.3	5.0	3.0
Participate in planning extension work	10.3	9.6	15.2	10.9	8.0	8.0
Help promote extension work	16.5	26.6	17.4	26.1	16.0	27.0
Other	0.0	0.7	0.0	0.0	0.0	1.0
Don't know	29.5	16.8	8.7	0.0	39.0	24.0

Hsien Farmers' Association supervisors indicated that coordination and getting cooperation from local organizations, and approving extension plans and budgets were the two most important functions of the Hsien Advisory Committee. The percentages rating these either first or second in importance were 26.2 and 21.8, respectively. Comparable figures for hsien government supervisors were 15.0 and 12.0 percent. As a matter of fact, hsien government supervisors considered "help promote extension work" as the most important function of the committee (16.0 percent of them said so). (See Table XVI).

Comparison of the views held by the hsien supervisors with the functions assigned to the committee by the government, indicates that hsien Farmers' Association supervisors understand the functions of the committee better than hsien government supervisors, which is to be expected.[59]

Ideal Functions of Hsien Extension Advisory Committees

With respect to the ideal functions of Hsien Extension Advisory Committees, about 24.0 percent of the hsien government supervisors could not indicate what the ideal function of the Hsien Extension Advisory Committee should be, but none of the hsien Farmers' Association supervisors failed to do so.

Hsien Farmers' Association supervisors thought that the committee should pay more attention to the promotion of extension work (actual, 17.4 percent; ideal, 26.1 percent) in addition to the two major functions previously indicated. Hsien government supervisors, on the other hand, exclusively regarded the promotion of extension work as the most important function of the committee. (See Table XVI).

Accomplishments of Hsien Extension Advisory Committees

Generally speaking, hsien Farmers' Association supervisors thought that Hsien Extension Advisory Committees have accomplished most of their functions (65.2 percent) while only 34.0 percent of hsien government supervisors thought so. (See Table XVII). This might be because hsien government supervisors overwhelmingly viewed their major function to be "to help promote extension work". They tended to overlook the other functions. As a result, hsien government supervisors were apparently more dissatisfied with the functions performed by the Hsien Extension Advisory Committees.

IV. PERCEIVED FAVORABILITY OF SELECTED "SIGNIFICANT OTHERS" TOWARD OWN EXTENSION ACTIVITY

In general, hsien Farmers' Association supervisors thought that selected "significant others" as listed in the table, were quite favorable to the activities of the educational extension work. (See Table XVIII). Hsien government supervisors, on the other hand, thought the subject-matter specialists and researchers were much more favorable toward their activities than those head officers at the hsien level.

This inclination might be that magistrates of hsien governments and general managers of hsien Farmers' Associations were well informed about the activities of the educational extension program through the Hsien Extension Advisory Committees while they were not well informed on the general extension program. The more they were informed, the better they understood the activities, which definitely affected their attitudes to the programs.

TABLE XVII

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND BY PROPORTION OF FUNCTIONS THEY THINK HSIEN EXTENSION ADVISORY COMMITTEES HAVE ACCOMPLISHED

Proportion of Functions Accomplished	Total % (N=73)	Hsien Farmers' Association Supervisors % (N=23)	Hsien Government Supervisors % (N=50)
Total	100.0	100.0	100.0
Does not apply	0.0	0.0	0.0
All	9.6	17.4	6.0
Most	34.2	47.8	28.0
Some	28.8	26.1	30.0
None	0.0	0.0	0.0
Don't know	27.4	8.7	36.0

TABLE XVIII

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND PERCEIVED FAVORABILITY OF SELECTED "SIGNIFICANT OTHERS" TOWARD OWN EXTENSION ACTIVITY

Significant Others (to Extension Supervisors)	Favorability as Seen by Hsien Farmers' Association Extension Supervisors			Favorability as Seen by Hsien Government Extension Supervisors		
	Unfavorable % (N=23)	Indifferent % (N=23)	Favorable or Very Favorable % (N=23)	Unfavorable % (N=50)	Indifferent % (N=50)	Favorable or Very Favorable % (N=50)
Hsien Farmers' Association General Manager	0.0	0.0	100.0	2.0	20.0	78.0
Magistrate	0.0	4.3	91.4	2.0	10.0	88.0
Hsien Extension Advisory Committee	0.0	4.3	91.4	0.0	12.0	58.0
Subject-Matter Specialists	0.0	0.0	100.0	0.0	2.0	96.0
Researchers	0.0	0.0	91.4	0.0	8.0	90.0

CHAPTER VII. COMMUNICATION BEHAVIOR OF HSIEN SUPERVISORS

The views held of extension activities by both types of hsien supervisors have been discussed in the previous chapter. This chapter focuses attention on the communications behavior of hsien supervisors, on contacts made, and information sources and channels used by hsien supervisors to get the information.

Hsien supervisors work at an intermediary level between the provincial and township levels in the information dissemination system. In their intermediary position, they must contact many agencies to get information in order to perform their duties. Whether or not the communication behavior of the two types of hsien supervisors differs in their approach and implementation of extension programs is the main concern in this chapter. These are presented in the indicated order.

I. CONTACTS WITH EXTENSION RELATED PERSONNEL AND ORGANIZATIONS

A profile of the agency, and personal contacts of hsien government supervisors was obtained by asking them about their contacts with each of 13 different kinds of people and agencies involved in their work as extension supervisors. Specifically, respondents were asked to indicate whether or not they had any contact with each during the past year, who usually initiated the contacts, and whether it was of an individual or group nature. Their responses are listed in Table XIX. It is surprising that both hsien Farmers' Association supervisors and hsien government supervisors had contacts with all thirteen channels. Differences were only in number and nature of contacts.

Personnel Contacts Made

The personnel contacts that hsien Farmers' Association supervisors made with agencies or people more than 80 times during the year prior to interview were:

(1) improvement station technicians,

(2) hsien government extension supervisors,

(3) township Farmers' Association extension advisors,

(4) township public office extension advisors, and

(5) farmers.

Thus it was apparent that hsien Farmers' Association supervisors were in more frequent contact with personnel working in extension agencies at their own and the township level than hsien government supervisors. Improvement station technicians and farmers were also frequently contacted. Furthermore, the contacts were mostly initiated by hsien Farmers' Association supervisors themselves. (See Table XIX).

The personnel with whom hsien government supervisors made contacts more than 80 times during the past year were (see Table XX):

(1) improvement station technicians,

(2) research institute technicians,

(3) extension workers of the Taiwan Sugar Corporation and the Wine and Tobacco Monopoly Bureau,

(4) Food Bureau staff,

(5) extension supervisors of the Provincial Department of Agriculture and Forestry,

(6) hsien Farmers' Association supervisors,

(7) township Farmers' Association extension advisors,

(8) township public office extension advisors, and

(9) farmers.

TABLE XIX

PERCENT OF HSIEN FARMERS' ASSOCIATION EXTENSION SUPERVISORS CLASSIFIED BY REPORTED NUMBER OF CONTACTS WITH DESIGNATED AGENCY PERSONNEL AND WHO USUALLY INITIATED THE PERSONAL CONTACTS

Agency Personnel (Kind of Contact)	Number of Contacts Past Year							Who Usually Initiated the Individual Contacts*		
	Total %	None %	1-20 %	21-40 %	41-80 %	Over 80 %	Median %	Self %	They %	Both About Equally %
Improvement Station Technicians										
Individual	100.0	0.0	47.8	26.0	13.1	13.1	(22.2)	47.8	17.4	34.8
Group	100.0	4.3	82.7	13.0	0.0**		(8.5)	-	-	-
Research Institute Technicians										
Individual	100.0	13.0	82.7	4.3	0.0	0.0	(4.9)	43.5	26.1	17.4
Group	100.0	13.0	87.0	0.0	0.0**		(3.7)	-	-	-
Agricultural College Personnel										
Individual	100.0	43.5	56.5	0.0	0.0	0.0	(1.8)	13.0	34.8	8.7
Group	100.0	26.1	73.9	0.0	0.0**		(2.8)	-	-	-
Taiwan Sugar Corporation or Wine and Tobacco Monopoly Bureau										
Individual	100.0	30.4	52.2	8.7	8.7	0.0	(3.5)	17.4	17.4	34.8
Group	100.0	34.8	56.6	4.3	4.3**		(3.2)	-	-	-

TABLE XIX (Continued)

Agency Personnel (Kind of Contact)	Total %	Number of Contacts Past Year: None %	1-20 %	21-40 %	41-80 %	Over 80 %	Median %	Who Usually Initiated the Individual Contacts*: Self %	They %	Both About Equally %
Food Bureau Staff										
Individual	100.0	13.1	73.8	13.1	0.0	0.0	(10.7)	30.4	21.7	34.8
Group	100.0	8.7	78.3	8.7	4.3**		(5.0)	-	-	-
Joint Commission on Rural Reconstruction Staff										
Individual	100.0	17.4	82.6	0.0	0.0	0.0	(5.2)	4.3	65.2	13.0
Group	100.0	21.7	78.3	0.0	0.0**		(4.0)	-	-	-
Provincial Department of Agriculture and Forestry Extension Supervisors										
Individual	100.0	0.0	82.6	8.7	8.7	0.0	(11.2)	13.0	65.2	21.7
Group	100.0	4.3	91.4	4.3	0.0**		(8.0)	-	-	-
Provincial Farmers' Association Extension Supervisors										
Individual	100.0	0.0	60.9	26.0	13.1	0.0	(18.9)	21.7	56.5	21.7
Group	100.0	0.0	95.7	4.3	0.0**		(10.5)	-	-	-
Hsien Farmers' Association Extension Supervisors										

TABLE XIX (Continued)

Agency Personnel (Kind of Contact)	Total %	Number of Contacts Past Year: None %	1-20 %	21-40 %	41-80 %	Over 80 %	Median %	Who Usually Initiated the Individual Contacts*: Self %	They %	Both About Equally %
Individual	100.0	100.0	0.0	0.0	0.0	0.0	(0.0)	0.0	0.0	0.0
Group	100.0	100.0	0.0	0.0	0.0**		(0.0)	-	-	-
Hsien Government Extension Supervisors										
Individual	100.0	0.0	21.7	26.1	26.1	26.1	(43.5)	52.0	0.0	47.8
Group	100.0	4.3	65.4	17.3	13.0**		(15.2)	-	-	-
Township Farmers' Association Extension Advisers										
Individual	100.0	0.0	0.0	0.0	8.7	91.3	(20.8)	52.2	4.3	43.5
Group	100.0	0.0	26.0	34.9	39.1**		(32.6)	-	-	-
Township Public Office Extension Advisers										
Individual	100.0	13.1	39.1	34.8	4.3	8.7	(18.6)	65.3	0.0	21.7
Group	100.0	17.4	78.3	0.0	4.3**		(7.8)	-	-	-
Farmers										
Individual	100.0	0.0	0.0	0.0	21.7	78.3	(17.6)	69.6	4.3	26.1
Group	100.0	0.0	21.8	34.7	43.5**		(36.2)	-	-	-

*With non-applicable cases reported under no individual contact, column percents add to 100.

**Group contacts define over 40.

TABLE XX

PERCENT OF HSIEN GOVERNMENT EXTENSION SUPERVISORS CLASSIFIED BY REPORTED NUMBER OF CONTACTS WITH DESIGNATED AGENCY PERSONNEL AND WHO USUALLY INITIATED THE PERSONAL CONTACTS

Agency Personnel (Kind of Contact)	Number of Contacts Past Year							Who Usually Initiated the Individual Contacts*		
	Total %	None %	1-20 %	21-40 %	41-80 %	Over 80 %	Median %	Self %	They %	Both About Equally %
Improvement Station Technicians										
Individual	100.0	12.0	54.0	18.0	6.0	10.0	(16.6)	28.0	12.0	48.0
Group	100.0	18.0	66.0	10.0	6.0**		(7.3)	-	-	-
Research Institute Technicians										
Individual	100.0	20.0	72.0	6.0	0.0	2.0	(4.3)	30.0	32.0	18.0
Group	100.0	16.0	82.0	2.0	0.0**		(3.7)	-	-	-
Agricultural College Personnel										
Individual	100.0	56.0	44.0	0.0	0.0	0.0	(0.9)	4.0	38.0	2.0
Group	100.0	62.0	38.0	0.0	0.0**		(0.8)	-	-	-
Taiwan Sugar Corporation or Wine and Tobacco Monopoly Bureau										
Individual	100.0	58.0	36.0	2.0	2.0	2.0	(0.9)	18.0	8.0	16.0
Group	100.0	66.0	30.0	2.0	2.0**		(0.8)	-	-	-
Food Bureau Staff										
Individual	100.0	26.0	52.0	6.0	6.0	10.0	(5.6)	22.0	8.0	44.0

TABLE XX (Continued)

Agency Personnel (Kind of Contact)	Total %	Number of Contacts Past Year: None %	1-20 %	21-40 %	41-80 %	Over 80 %	Median %	Who Usually Initiated the Individual Contacts*: Self %	They %	Both About Equally %
Group	100.0	32.0	64.0	4.0	0.0**		(3.8)	-	-	-
Joint Commission on Rural Reconstruction Staff										
Individual	100.0	22.0	70.0	6.0	2.0	0.0	(4.2)	26.0	36.0	16.0
Group	100.0	24.0	74.0	2.0	0.0**		(4.0)	-	-	-
Provincial Department of Agriculture and Forestry Extension Supervisors										
Individual	100.0	0.0	66.0	16.0	12.0	6.0	(14.2)	20.0	38.0	42.0
Group	100.0	4.0	84.0	12.0	0.0**		(5.0)	-	-	-
Provincial Farmers' Association Extension Supervisors										
Individual	100.0	48.0	52.0	0.0	0.0	0.0	(1.3)	8.0	36.0	8.0
Group	100.0	38.0	62.0	0.0	0.0**		(2.2)	-	-	-
Hsien Farmers' Association Extension Supervisors										
Individual	100.0	6.0	44.0	18.0	16.0	16.0	(20.0)	14.0	24.0	56.0
Group	100.0	14.0	72.0	10.0	4.0**		(6.5)	-	-	-
Hsien Government Extension Supervisors										

TABLE XX (Continued)

Agency Personnel (Kind of Contact)	Total %	Number of Contacts Past Year: None %	1-20 %	21-40 %	41-80 %	Over 80 %	Median %	Who Usually Initiated the Individual Contacts*: Self %	They %	Both About Equally %
Individual	100.0	100.0	0.0	0.0	0.0	0.0	(0.0)	0.0	0.0	0.0
Group	100.0	100.0	0.0	0.0	0.0**		(0.0)	-	-	-
Township Farmers' Association Extension Advisers										
Individual	100.0	4.0	18.0	16.0	8.0	54.0	(91.0)	58.0	10.0	28.0
Group	100.0	8.0	64.0	14.0	14.0**		(12.5)	-	-	-
Township Public Office Extension Advisers										
Individual	100.0	4.0	10.0	6.0	12.0	68.0	(22.4)	50.0	10.0	36.0
Group	100.0	6.0	54.0	28.0	12.0**		(14.8)	-	-	-
Farmers										
Individual	100.0	0.0	8.0	2.0	6.0	84.0	(73.7)	68.0	14.0	18.0
Group	100.0	2.0	52.0	24.0	22.0**		(19.3)	-	-	-

*With non-applicable cases reported under no individual contact, column percents add to 100.

**Group contacts define over 40.

In addition to the contacts made with personnel at their own level and the township level, hsien government supervisors also made frequent contacts with personnel in the upper level agencies including research institutes. Contacts made between hsien government supervisors and personnel in the upper level agencies were allegedly initiated equally by both sides, while that between hsien Farmers' Association supervisors and the personnel in the lower level agencies were mainly initiated by the upper levels. This indicates that in general, extension communication tended to be from top down; also that lower level personnel asked for instruction or explanation of policies frequently, as well. The reader will recall that hsien government supervisors often contacted farmers directly in implementing township extension programs and that township public office extension advisors depended heavily on instructions from their superiors at the hsien level. (See Table XI, XIII, and XIV). This inclination was not nearly so evident in the educational extension programs where local people are extensively involved in extension work and program planning.

Purpose of Contacts

With respect to the purpose of contacts made, both types of hsien supervisors contacted technicians in improvement stations and research institutes mainly to seek information, while contacts made with people in the lower level agencies were for giving supervision, and with people in the upper level agencies, for seeking instruction or supervision. (See Table XXI and XXII). However, some additional differences between the two were apparent. For example, hsien Farmers' Association supervisors had more contacts with farmers than hsien government supervisors

TABLE XXI

PERCENT OF HSIEN FARMERS' ASSOCIATION EXTENSION SUPERVISORS CLASSIFIED BY PURPOSE OF PERSONAL CONTACTS WITH SELECTED CLIENTELE

Selected Clientele	Total % (N=23)	Does Not Apply % (N=52)	Seeking Information % (N=82)	Supervision % (N=78)	Extension Activities % (N=61)	Financial Matters % (N=18)	Training % (N=7)	Other % (N=10)
Farmers	100.0	0.0	52.0	35.0	8.0	0.0	0.0	0.0
District Agriculture Improvement Station Workers	100.0	0.0	48.0	26.0	22.0	0.0	4.0	0.0
Research Institute Workers	100.0	13.0	65.0	13.0	8.0	0.0	0.0	0.0
Township Farmers' Association Extension Advisors	100.0	0.0	18.0	48.0	30.0	4.0	0.0	0.0
Public Office Extension Advisors	100.0	13.0	4.0	9.0	31.0	39.0	0.0	0.0
Hsien Farmers' Association Extension Supervisors	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Hsien Government Extension Supervisors	100.0	0.0	17.0	35.0	26.0	18.0	0.0	4.0
Provincial Farmers' Association Extension Supervisors	100.0	0.0	18.0	57.0	17.0	4.0	4.0	0.0
Provincial Department of Agriculture and Forestry Extension Supervisors	100.0	0.0	22.0	57.0	17.0	0.0	4.0	0.0

TABLE XXI (Continued)

Selected Clientele	Total % (N=23)	Does Not Apply % (N=52)	Seeking Information % (N=82)	Supervision % (N=78)	Extension Activities % (N=61)	Financial Matters % (N=18)	Training % (N=7)	Other % (N=10)
Agricultural College Personnel	100.0	43.0	48.0	0.0	0.0	0.0	0.0	0.0
Taiwan Sugar Corporation or Monopoly Bureau Workers	100.0	30.0	0.0	13.0	44.0	0.0	13.0	0.0
Food Bureau Workers	100.0	13.0	4.0	22.0	48.0	4.0	0.0	9.0
Joint Commission on Rural Reconstruction Workers	100.0	13.0	18.0	26.0	13.0	13.0	0.0	17.0

TABLE XXII

PERCENT OF HSIEN GOVERNMENT EXTENSION SUPERVISORS CLASSIFIED BY PURPOSE OF PERSONAL CONTACTS WITH SELECTED CLIENTELE

Selected Clientele	Total % (N=50)	Does Not Apply % (N=52)	Seeking Information % (N=82)	Supervision % (N=78)	Extension Activities % (N=61)	Financial Matters % (N=18)	Training % (N=7)	Other % (N=10)
Farmers	100.0	0.0	48.0	40.0	8.0	0.0	0.0	4.0
District Agriculture Improvement Station Workers	100.0	12.0	54.0	18.0	12.0	0.0	4.0	0.0
Research Institute Workers	100.0	20.0	62.0	14.0	4.0	0.0	0.0	0.0
Township Farmers' Association Extension Advisors	100.0	4.0	14.0	58.0	20.0	2.0	2.0	0.0
Public Office Extension Advisors	100.0	4.0	12.0	66.0	18.0	0.0	0.0	0.0
Hsien Farmers' Association Extension Supervisors	100.0	6.0	16.0	40.0	38.0	0.0	0.0	0.0
Hsien Government Extension Supervisors	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Provincial Farmers' Association Extension Supervisors	100.0	48.0	6.0	10.0	26.0	6.0	2.0	2.0
Provincial Department of Agriculture and Forestry Extension Supervisors	100.0	0.0	14.0	54.0	18.0	14.0	0.0	0.0

TABLE XXII (Continued)

Selected Clientele	Total % (N=50)	Does Not Apply % (N=52)	Seeking Information % (N=82)	Supervision % (N=78)	Extension Activities % (N=61)	Financial Matters % (N=18)	Training % (N=7)	Other % (N=10)
Agricultural College Personnel	100.0	56.0	36.0	6.0	0.0	0.0	0.0	2.0
Taiwan Sugar Corporation or Monopoly Bureau Workers	100.0	58.0	20.0	4.0	12.0	4.0	0.0	2.0
Food Bureau Workers	100.0	26.0	10.0	30.0	24.0	10.0	0.0	0.0
Joint Commission on Rural Reconstruction Workers	100.0	22.0	18.0	36.0	8.0	16.0	0.0	0.0

to seek information, participate in extension activities, and provide training. Actually, hsien government supervisors had never held any training meetings for farmers. (See Table XXI and XXII). This all reflected the different approaches employed by the educational and general extension programs. The former emphasized developing people, the latter, supervision. This inclination was further supported by the more frequent contacts of hsien Farmers' Association supervisors with township extension advisors for extension work. Thirty percent of contacts made by hsien Farmers' Association supervisors with township extension workers were participating in extension activities while only twenty percent of contacts made by hsien government supervisors were for the same purpose. Hsien government supervisors made contacts with township extension workers mainly for instructional supervision.

In addition, hsien Farmers' Association supervisors had more contacts with extension workers in such organizations as the Sugar Corporation, the Wine and Tobacco Monopoly Bureau, and the Food Bureau through participating in extension activities. This relationship was far less percentagewise for hsien government supervisors.

II. SOURCES AND CHANNELS USED TO GET FARM INFORMATION

Many studies have revealed that the more contacts made with the outside world, or the more reference resources employed, the greater will be the modern way of thinking on the part of those exposed. This might also be expected of hsien supervisors; also, that differences would occur between the two groups in their exposure to information sources. It is the purpose of this section to examine whether or not two types of hsien supervisors differed in their extension training and

were engaged in different behavior for seeking farm information. All respondents were accordingly asked specifically to indicate whether or not they had used each of a list of 21 sources for seeking farm information during the past year, the channels they had used to get the information and to estimate how regularly they used each of them. The sources about which they were questioned are listed in Table XXIII.

Sources Used

Both hsien Farmers' Association supervisors and hsien government supervisors acquired farm information from all of the sources. Again, as with contacts, differences were mainly in the intensity or frequency with which they were used. Hsien Farmers' Association supervisors used far more sources for seeking farm information than hsien government supervisors. Those reported at or above the regular use level by hsien Farmers' Association supervisors were:

(1) District Agricultural Improvement Station (95.6 percent),

(2) Provincial Department of Agriculture and Forestry (100 percent),

(3) Provincial Farmers' Association (91.3 percent),

(4) farm magazines (95.7 percent), and

(5) reference books (91.3 percent).

Hsien government supervisors drew farm information more exclusively from the Provincial Department of Agriculture and Forestry (84.0 percent) to keep their agricultural knowledge up to date. (See Table XXIII).

These differences are in accord with the way the two extension programs operate; i.e., general extension on planned production programs from top down and educational or Farmers' Association extension on educational matters mainly of local concern. Within these arrangements

TABLE XXIII

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND USE OF DESIGNATED FARM INFORMATION SOURCES AND CHANNELS TO GET FARM INFORMATION

Information Source and Channel (To Get Farm Information)	Percent of Total		Percent of Hsien Farmers' Association Supervisors		Percent of Hsien Government Supervisors	
	Using (N=73)	Using Regularly (N=73)	Using (N=23)	Using Regularly (N=23)	Using (N=50)	Using Regularly (N=50)
AGRICULTURAL IMPROVEMENT STATIONS	89.0	82.2	(100.0)	(95.7)	(84.0)	(76.0)
Personal contacts	83.6	63.0	100.0	78.3	76.0	56.0
Group contacts	80.8	47.9	100.0	60.9	72.0	42.0
Farm magazines	80.8	61.6	91.3	78.3	76.0	54.0
Written releases	76.7	56.2	91.3	73.9	70.0	48.0
Radio	67.1	35.6	73.9	43.5	64.0	32.0
Other	5.5	5.5	13.0	13.0	2.0	2.0
RESEARCH INSTITUTES	84.9	68.5	(95.7)	(65.2)	(80.0)	(70.0)
Personal contacts	71.2	39.7	65.2	26.1	74.0	46.0
Group contacts	69.9	31.5	73.9	30.4	68.0	32.0
Farm magazines	76.7	42.5	73.9	30.4	68.0	32.0
Written releases	68.5	37.0	73.9	43.5	66.0	34.0
Radio	41.1	13.7	47.8	17.4	38.0	12.0
AGRICULTURAL COLLEGES	81.2	36.7	(78.3)	(39.1)	(88.0)	(34.0)
Personal contacts	42.5	19.2	43.5	21.7	42.0	18.0
Group contacts	41.1	9.6	60.9	8.7	32.0	10.0

TABLE XXIII (Continued)

Information Source and Channel (To Get Farm Information)	Percent of Total		Percent of Hsien Farmers' Association Supervisors		Percent of Hsien Government Supervisors	
	Using (N=73)	Using Regularly (N=73)	Using (N=23)	Using Regularly (N=23)	Using (N=50)	Using Regularly (N=50)
Written releases	35.6	21.9	52.2	34.8	28.0	16.0
Other	13.7	11.0	13.0	8.7	14.0	12.0
PROVINCIAL DEPARTMENT OF AGRICULTURE AND FORESTRY	98.6	89.0	(100.0)	(100.0)	(98.0)	(84.0)
Personal contacts	93.2	68.5	87.0	65.2	96.0	70.0
Group contacts	93.2	50.7	95.7	43.5	92.0	54.0
Farm magazines	91.8	68.5	87.0	69.6	94.0	68.0
Extension publications	94.5	78.1	100.0	100.0	92.0	68.0
Radio	56.2	30.1	73.9	34.8	48.0	28.0
Other	1.4	1.4	4.3	0.0	0.0	2.0
VOCATIONAL AGRICULTURE SCHOOLS	19.2	6.8	(30.4)	(13.0)	(14.0)	(4.0)
Personal contacts	16.4	4.1	21.7	8.7	14.0	2.0
Group contacts	12.3	2.7	21.7	4.3	8.0	2.0
Other	4.1	0.0	8.7	0.0	2.0	0.0
PROVINCIAL FARMERS' ASSOCIATION	71.2	53.4	(100.0)	(91.3)	(58.0)	(36.0)
Personal contacts	60.3	31.5	87.0	69.6	48.0	14.0
Group contacts	57.5	32.9	87.0	60.9	44.0	20.0
Written releases	52.1	32.9	87.0	78.3	36.0	12.0
Other	32.9	24.7	47.8	39.1	26.0	18.0

TABLE XXIII (Continued)

Information Source and Channel (To Get Farm Information)	Percent of Total		Percent of Hsien Farmers' Association Supervisors		Percent of Hsien Government Supervisors	
	Using (N=73)	Using Regularly (N=73)	Using (N=23)	Using Regularly (N=23)	Using (N=50)	Using Regularly (N=50)
HSIEN GOVERNMENT OFFICES	-	-	(78.3)	(56.5)	-	-
Personal contacts	-	-	78.3	52.2	-	-
Group contacts	-	-	69.6	26.1	-	-
Written releases	-	-	39.1	8.7	-	-
Radio	-	-	34.8	17.4	-	-
Other	-	-	0.0	0.0	-	-
HSIEN FARMERS' ASSOCIATION	-	-	-	-	(58.0)	(42.0)
Personal contacts	-	-	-	-	56.0	38.0
Group contacts	-	-	-	-	56.0	30.0
Written releases	-	-	-	-	20.0	10.0
Radio	-	-	-	-	18.0	8.0
Other	-	-	-	-	2.0	2.0
TOWNSHIP FARMERS' ASSOCIATION	65.8	50.7	(78.3)	(60.9)	(60.0)	(46.0)
Personal contacts	60.3	47.9	69.6	56.5	56.0	44.0
Group contacts	56.2	32.9	56.5	30.4	56.0	34.0
Written releases	23.3	17.8	21.7	39.1	24.0	8.0
Other	5.5	4.1	4.3	0.0	6.0	6.0
TOWNSHIP PUBLIC OFFICES	54.8	39.7	(43.5)	(30.4)	(60.0)	(42.0)
Personal contacts	50.7	37.0	39.1	30.4	56.0	40.0

TABLE XXIII (Continued)

Information Source and Channel (To Get Farm Information)	Percent of Total		Percent of Hsien Farmers' Association Supervisors		Percent of Hsien Government Supervisors	
	Using (N=73)	Using Regularly (N=73)	Using (N=23)	Using Regularly (N=23)	Using (N=50)	Using Regularly (N=50)
Group contacts	45.2	23.3	39.1	13.0	48.0	28.0
Written releases	20.5	11.0	17.4	0.0	22.0	16.0
Other	5.5	5.5	0.0	0.0	8.0	8.0
TAIWAN SUGAR CORPORATION	54.8	27.4	(32.0)	(34.8)	(48.0)	(24.0)
Personal contacts	35.6	19.2	24.0	26.1	28.0	16.0
Group contacts	35.6	8.2	56.5	4.3	26.0	10.0
Radio	15.1	8.2	26.1	8.7	10.0	8.0
Other	20.5	16.4	17.4	17.4	22.0	16.0
FOOD BUREAU	71.2	46.6	(82.6)	(43.5)	(66.0)	(48.0)
Personal contacts	63.0	30.1	65.2	21.7	62.0	34.0
Group contacts	58.9	28.8	69.61	13.0	54.0	36.0
Written releases	47.9	26.0	56.5	21.7	44.0	28.0
Other	5.5	2.7	0.0	0.0	8.0	4.0
WINE AND TOBACCO MONOPOLY BUREAU	5.5	4.1	(4.3)	(4.3)	(6.0)	(4.0)
Personal contacts	2.7	1.4	4.3	4.3	2.0	0.0
Group contacts	4.1	2.7	4.3	0.0	4.0	4.0
Other	4.1	2.7	8.6	4.3	2.0	2.0
Broadcast	79.2	45.8	82.6	47.8	76.0	42.0

TABLE XXIII (Continued)

Information Source and Channel (To Get Farm Information)	Percent of Total		Percent of Hsien Farmers' Association Supervisors		Percent of Hsien Government Supervisors	
	Using (N=73)	Using Regularly (N=73)	Using (N=23)	Using Regularly (N=23)	Using (N=50)	Using Regularly (N=50)
Farm magazines	99.1	84.9	100.0	85.7	86.0	78.0
Books	99.1	83.8	100.0	81.3	86.0	78.0
Newspapers	93.2	73.0	100.0	68.6	88.0	74.0
Extension colleagues	96.1	68.0	100.0	68.6	82.0	66.0
Farmers	93.2	56.8	100.0	56.5	88.0	56.0
Dealers	54.0	26.3	56.5	8.7	52.0	34.0
Joint Commission on Rural Reconstruction	96.1	48.8	100.0	34.8	92.0	56.0

the former would be expected to get information and instruction through the government hierarchy and the latter to draw heavily on sources of best information for educational purposes. This is further illustrated by the use of District Agricultural Improvement Stations which were originally designed to provide local technical farm information to extension workers. Farmers' Association supervisors made extensive use of them but hsien government supervisors did not.

Another explanation for differences in source use might be the narrow sense of general extension. To hsien government supervisors the objective of extension is only to teach farmers improved farm practices that are associated with government production plans. Consequently hsien government supervisors do not feel the necessity to seek more information from various sources for implementing their program.

The situation in educational extension programs is just the reverse. The objective of this type of extension is to develop farm people and improve community life as a whole. Hsien Farmers' Association supervisors, therefore, had to seek all needed information from a wide range of sources. Besides, they were invited to participate in program planning which made hsien Farmers' Association supervisors develop themselves to be independent in seeking farm information.

Colleges of agriculture, vocational schools, the Taiwan Sugar Corporation, the Wine and Tobacco Monopoly Bureau, and dealers were rated by both hsien supervisors as the sources from which they drew comparatively less farm information. Evidently this is because those agencies are not directly involved in extension work.

Channels Used

There were also differences in channels used to get farm information. Hsien government supervisors employed personal contacts whereas hsien Farmers' Association supervisors extensively used a variety of channels which included written releases in addition to personal contacts. (See Table XXIV).

When farm information was derived from upper level agencies, such as the Provincial Department of Agriculture and Forestry or the Provincial Farmers' Association, hsien Farmers' Association supervisors depended mainly on written releases such as publications or farm magazines for acquiring farm information, while hsien government supervisors derived it mainly through personal contacts.

When farm information was sought either from equal or lower level agencies, personal contacts were commonly used by both types of hsien supervisors. However, the reader will recall that hsien Farmers' Association supervisors made contact with lower level agencies through extension activities while this was achieved by hsien government supervisors mainly through instructive supervision. (See Table XXI and XXII).

When farm information was sought from commodity extension channels such as the Sugar Corporation and the Wine and Tobacco Monopoly Bureau, personal contacts were the main channel for hsien Farmers' Association supervisors, while group contacts prevailed for hsien government supervisors. (See Table XXIV). The reader should recall that hsien Farmers' Association supervisors had better working relationships with extension workers in the commodity extension organizations than the hsien government supervisors. (See Table XXI and XXII).

TABLE XXIV

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND USE OF DESIGNATED CHANNELS AND/OR MEDIA TO COMMUNICATE FARM INFORMATION TO TOWNSHIP EXTENSION WORKERS

Communication Media and/or Channels	Total % (N=73)	Hsien Farmers' Association % (N=23)	Hsien Government % (N=50)
Personal Contacts	100.0	100.0	100.0
Group Contacts	95.9	100.0	94.0
Training Meetings	90.4	100.0	86.0
General Meetings	95.9	100.0	94.0
Educational Events	93.2	100.0	90.0
Publications (Pamphlets, Leaflets)	89.0	95.7	86.0
by Provincial Department of Agriculture and Forestry	83.6	87.0	82.0
by Agricultural Improvement Stations	67.1	82.6	60.0
by Research Institutes	53.4	52.2	54.0
by Agricultural Colleges	34.2	56.5	24.0
by Various Others	43.8	52.2	40.0
Circular Letters	67.1	82.6	60.0
Farm Magazines	54.8	65.2	50.0
Radio	58.9	65.2	56.0
Newspaper Articles	57.5	65.2	54.0
Exhibits	67.1	82.6	60.0
Official Correspondence	90.4	100.0	86.0

All of this is in further support of the diversity of informational seeking contacts of hsien Farmers' Association supervisors and the more limited contacts of hsien government supervisors.

III. CHANNELS USED TO DISSEMINATE FARM INFORMATION TO EXTENSION WORKERS

A major responsibility of hsien extension supervisors is to act as intermediaries and even as sources of information to extension workers at the township level and occassionally farmers, also. This requires both information dissemination and persuasion. Data for the analysis which follows relate mainly to information dissemination from hsien supervisors to extension workers at the township level.

Coleman and Katz[60] revealed in their drug study that the more contacts with various kinds of media, the faster the adoption of a new drug would be. Merton[61] found that in modern society people used a greater variety of media for communicating ideas than in traditional society. This means that in a system with modern norms people are likely to use a greater diversity of methods to communicate ideas than in a system with traditional norms.

Hsien Farmers' Association supervisors are better trained in extension methods than hsien government supervisors. Whether or not there is a difference in their ways of communicating farm information to township extension advisors is examined in this section.

All respondents were asked to indicate what kind of channels or media they used to communicate farm information to township extension workers. These responses are reported in Table XXIV. From this it can be seen that hsien Farmers' Association supervisors used a greater

variety of channels and media at a high frequency level to reach township extension advisors than hsien government supervisors.

A much more distinct differentiation in their communication behavior was reflected in their most and second-most used channels to communicate farm information to extension advisors. These responses are reported in Table XXV. From this it can be seen that the most frequently used channels or media by hsien Farmers' Association supervisors were:

(1) personal contacts (43.5 percent said this was most used),

(2) training meetings (30.5 percent said most used),

(3) group contacts (8.7 percent), and

(4) general meetings (8.7 percent of contacts were through this channel).

On the contrary, the most frequent channels used by hsien government supervisors to communicate township extension advisors were:

(1) personal contacts (34.0 percent said this was their most used channel),

(2) training meetings (26.0 percent said this was most used),

(3) through official correspondence (22.0 percent), and

(4) general meetings (6.0 percent).

There was an inclination for hsien government supervisors to make more use of conference type meetings or authoritative types of official correspondence to communicate farm information to township advisors. This is in accord with the line agency nature of this type of extension. On the other hand, hsien Farmers' Association supervisors very seldom communicated farm information to township advisors by means of official correspondence. Instead, this was done through various extension activities, personal contacts, and publications such

TABLE XXV

PERCENT OF HSIEN EXTENSION SUPERVISORS CLASSIFIED BY POSITION LOCATION AND MOST AND SECOND-MOST USED CHANNELS AND/OR MEDIA TO COMMUNICATE FARM INFORMATION TO TOWNSHIP EXTENSION WORKERS

Channels of Communication	Total		Hsien Farmers' Association Supervisors		Hsien Government Supervisors	
	Most % (N=73)	2nd Most % (N=73)	Most % (N=23)	2nd Most % (N=23)	Most % (N=50)	2nd Most % (N=50)
Personal contacts	36.0	19.1	43.5	17.5	34.0	40.0
Group contacts	5.5	6.8	8.7	4.3	4.0	8.0
Training meetings	26.9	15.2	30.5	21.8	26.0	12.0
General meetings	6.8	19.1	8.7	4.3	6.0	26.0
Various extension activities (including demonstrations, tours, etc.)	1.4	19.1	0.0	21.8	2.0	18.0
Mass media	0.0	0.0	0.0	0.0	0.0	0.0
Extension pamphlets, leaflets, and other publications issued	1.4	8.2	4.3	13.0	0.0	6.0
by the Provincial Department of Agriculture and Forestry	0.0	1.4	0.0	0.0	0.0	2.0
by the District Agricultural Improvement Station	0.0	0.0	0.0	0.0	0.0	0.0
Research institutes	0.0	0.0	0.0	0.0	0.0	0.0
Agricultural colleges	0.0	0.0	0.0	0.0	0.0	0.0
Other organizations	0.0	0.0	0.0	0.0	0.0	0.0

TABLE XXV (Continued)

Channels of Communication	Total		Hsien Farmers' Association Supervisors		Hsien Government Supervisors	
	Most % (N=73)	2nd Most % (N=73)	Most % (N=23)	2nd Most % (N=23)	Most % (N=50)	2nd Most % (N=50)
Circular letters	4.1	2.8	4.3	8.7	4.0	0.0
Farm magazines	1.4	0.0	0.0	0.0	2.0	0.0
Radio	0.0	1.4	0.0	0.0	0.0	2.0
Newspaper articles	1.4	1.4	0.0	4.3	0.0	0.0
Exhibits	0.0	0.0	0.0	0.0	0.0	0.0
Through official correspondence	15.1	5.5	0.0	4.3	22.0	6.0

as pamphlets and leaflets. This again is in accord with the orientation of educational extension to the principle of helping people to help themselves.

CHAPTER VIII. SUMMARY AND CONCLUSION

Agricultural extension is not new in Taiwan. As early as 1910 such programs were being carried out through government agencies with assistance of Farmers' Associations. At that time extension work was mainly carried out through individual contacts with an emphasis on food production. Subsidies of cash or materials, or both, were generally provided by the governments as incentives to farmers to adopt new practices that would raise food production. Few extension techniques were known or employed to facilitate the diffusion of new innovations.

After World War II, a new look of extension with an educational orientation was introduced in addition to a subsidy type of extension work in 1953. This new look of extension was aimed at developing people and improving community life generally. It carried a philosophy that if farmers were well-educated or developed, the adoption of new farming practices would be naturally facilitated and that high production and better community life would ultimately occur. It emphasized the development of people to help themselves. Various kinds of extension techniques were used to facilitate the adoption of new innovations in contrast to a heavy emphasis on subsidies for incentives. Owing to its different philosophy, the subsidy type of extension which was aimed at carrying out production plans, came to be known as general extension.

To develop people is not an easy task. Especially where literacy rates are low. In the meantime food production had to increase. Thus it is quite reasonable that before the new system could replace the old, there had to be a period of time of co-existence of

the two systems. This period may be long or quite short depending upon its culture and past extension history. This is likely to be especially true in the under developed or developing countries.

Since the introduction of a new look of extension programs into Taiwan in 1953, two types of extension programs have existed; one referred to as general extension, the other as educational extension. The former--a subsidy type of program--was mainly handled by government employees through three-level government agencies, while the latter was chiefly carried out by extension workers employed by Farmers' Associations at the provincial, hsien, and township levels.

Although educational extension is only 16 years old, educational extension workers have been exposed to many training sessions and activities. It is generally believed that the general orientation and communication behaviors of the two types of extension workers must be different. But, no attempt had ever been made to systematically study these differences before the Lionberger and Chang study in 1966. This study was directed to extension workers at provincial, hsien and township levels with views and communication behaviors the central focus. However, this paper is concerned only with hsien extension supervisors.

I. SUMMARY

Twenty-three of twenty-nine hsien Farmers' Association supervisors (educational extension workers) in Taiwan, and fifty out of 286 hsien government supervisors (general extension workers) were randomly selected and interviewed. The study revealed that hsien supervisors in the two organizations had quite distinctly different views about extension activities and communication behavior.

Some of these highlights are summarized as follows:

(1) Seventy percent of hsien government supervisors had been in their position for more than 15 years when the interview was conducted, compared to none of the hsien Farmers' Association supervisors. In addition, 40 percent of the hsien government supervisors had been engaged in extension work for more than 25 years; but only 13 percent of the hsien Farmers' Association supervisors had been. The median years in extension work for hsien government supervisors was 22.9; for Farmers' Association supervisors, only 14.4 years.

(2) There was more stability of tenure on the government side than on the Farmers' Association side. The same inclination was also found in township extension advisors. Only 5.5 percent of hsien government supervisors left their jobs during the three years prior to interview; for hsien Farmers' Association supervisors it was 25 percent. Eighty percent of hsien Farmers' Association supervisors who left did so by resignation compared to 12.5 percent of the hsien government supervisors. Hsien government supervisors were often transferred to work in the other departments within the organization in contrast to hsien Farmers' Association supervisors.

These differences might be attributed to respondents' comparative status in the two organizations. Hsien Farmers' Association supervisors were hired by general managers of hsien Farmers' Associations while hsien government supervisors were appointed by the government. Often hsien Farmers' Association supervisors were dismissed with the appointment of a new general manager by the Board of Directors of the hsien Farmers' Association.

(3) A majority of hsien government supervisors (66 percent) identified themselves with general extension programs, while about the same proportion of hsien Farmers' Association supervisors (56.5 percent) regarded themselves as engaged in educational extension. On the other hand, about 62 percent of township Farmers' Association advisors regarded themselves as working for both. Within the three-levels of Farmers' Associations, perceived differentiation seemed to progressively increase from township to provincial level.

(4) A majority of hsien Farmers' Association supervisors (56.5 percent) identified with the overall extension system while 76.0 percent of hsien government supervisors considered themselves as a part of their employing organization. The procedural differences in program planning and execution of programs employed in educational and general extension work might provide an explanation. Hsien Farmers' Association supervisors were extensively involved in the program planning efforts while hsien government supervisors were instructed by their organization chief on program execution.

(5) Hsien Farmers' Association supervisors emphasized helping develop plans, training advisors and local leaders with the view of enlisting their assistance in extension work. On the other hand, hsien government supervisors emphasized coordination of extension work, interpretation of extension policy and conducting farm and home visits. Accordingly, about 83 percent of hsien Farmers' Association supervisors perceived themselves as extension advisors advisement workers; 82 percent of the hsien government supervisors perceived themselves as extension administrators.

(6) Regarding extension objectives, hsien Farmers' Association supervisors had a broad view which included helping farmers adopt improved practices, developing greater competence in farming, developing local leadership, and helping to improve the living conditions of farm people generally. In contrast, hsien government supervisors saw extension as mainly teaching farmers improved practices and helping to carry out government production plans. Hsien government supervisors emphasized technical guidance while hsien Farmers' Association supervisors stressed development of knowledge, skills, and favorable attitudes toward farming in people; also rural development, or more specifically, development of community life generally. Hsien government supervisors viewed the improvement of farming practices as the ultimate objective of extension work. This difference in view reflected their different norms and training background.

(7) There was a rather distinct difference in views held about what action extension workers should take in case of disagreement between local office chiefs and supervisors. True to the hierarchial nature of general extension work, a majority of hsien government supervisors (68.0 percent) said that extension workers should follow hsien or provincial supervisor demands. But hsien Farmers' Association supervisors (52.2 percent) said that extension workers should follow what local office chiefs wanted in case of conflict.

There is a strong feeling of belonging to the entire information dissemination system among the extension workers working at the three levels of Farmers' Associations. This was essentially absent in the government extension workers; again in accord with the hierarchial nature of this organization.

(8) Hsien Farmers' Association supervisors thought that subject-matter specialists in improvement stations should emphasize the following services and activities:

a. help train extension workers,

b. prepare subject-matter pamphlets and leaflets,

c. prepare or give radio talks and write newspaper articles,

d. help train local leaders.

However, hsien government supervisors agreed only to the first two items. Instead, they thought that subject-matter specialists should concentrate heavily on helping township extension advisors conduct demonstrations and field tours. Also their view was that subject-matter specialists should visit farms and homes directly without being invited. This hsien Farmers' Associations supervisors were not inclined to recommend at all.

Hsien government supervisors emphasized individual guidance to teach farmers improved farm practices while hsien Farmers' Association supervisors emphasized a wide variety of extension techniques including mass media and training farm people mainly through group contacts. This supported the statement made in summary (6).

All is in support and accord with the broad view of extension held by hsien Farmers' Association supervisors as opposed to the more narrow view of extension held by hsien government supervisors. It also likely reflected the inadequacy of extension training given to general extension workers.

(9) The statements made in summary (8) are in support of the difference in views held of subject-matter specialists' roles by the two types of hsien supervisors.

However, both hsien Farmers' Association supervisors and hsien government supervisors generally viewed technicians in improvement stations as subject-matter specialists and those in research institutes as researchers.

(10) Agricultural extension advisory committees are organized for the purpose of promoting the educational extension program. As a result hsien Farmers' Association supervisors are much better acquainted with the specific functions of the Advisory Committee, while hsien government supervisors understood their broad general functions. Hsien Farmers' Association supervisors thought that getting coordination and cooperation from local organizations and approving extension plans and budgets were the two most important functions of the committee whereas hsien government supervisors regarded helping to promote extension work as most important.

Regarding ideal functions of the Hsien Advisory Committee, hsien Farmers' Association supervisors thought they should promote extension work in addition to the two main actual functions indicated by themselves. Hsien government supervisors, on the other hand, exclusively indicated that the promotion of extension work should be much more emphasized.

(11) Generally speaking, hsien Farmers' Association supervisors thought that selected "significant others" were quite favorable to the educational extension program. On the contrary, hsien government supervisors did not feel too much so, except for the favors shown by subject-matter specialists and researchers. This might be because the selected "significant others" were well informed about educational extension programs through the Extension Advisory Committee and various

publications, whereas they were not very much informed about the general extension program. Keeping significant others fully informed about extension work surely affected their attitudes to the programs.

(2) The frequent contacts made by hsien Farmers' Association supervisors were mostly with agencies at the corresponding level or lower and were mainly initiated by hsien Farmers' Association supervisors either for seeking information or helping carry on extension programs. On the contrary, hsien government supervisors contacted upper level agencies as often as with their own corresponding and lower level agencies. The contacts made with upper level agencies were initiated by both sides equally for the purpose of either giving supervision or getting instruction and explanation of policies. The contacts made with corresponding or lower level agencies were mainly initiated by hsien government supervisors for giving instructions. Hsien Farmers' Association supervisors more frequently contacted township advisors through participating in extension activities than hsien government supervisors.

(13) Hsien Farmers' Association supervisors used more sources for seeking farm information than hsien government supervisors. The sources regularly used (more than 80 percent in frequency) by hsien Farmers' Association supervisors were:

a. District Agricultural Improvement Station,

b. Provincial Department of Agriculture and Forestry,

c. Provincial Farmers' Association,

d. farm magazines, and

e. reference books.

On the contrary, the only source regularly used as much as 80 percent by hsien government supervisors, was the Provincial Department

of Agriculture and Forestry. Thus, hsien government supervisors depended quite exclusively on the Provincial Department of Agriculture and Forestry for farm information, which is in accord with the hierarchial nature of the government extension organization.

There were also important differences in the channels used by the two types of supervisors to get the information from the sources used. Hsien government supervisors mainly used personal contacts whereas hsien Farmers' Association supervisors sought farm information from different sources by means of either written releases or personal contacts depending upon the sources from which they drew information. Generally speaking, from upper level agencies or from research stations the farm information was sought through written releases, while from corresponding or lower level agencies, the information was acquired mainly by means of personal contacts.

(14) The most and second-most frequently used channels to communicate farm information to township extension advisors by hsien Farmers' Association supervisors were:

a. personal contacts,

b. training meetings,

c. various extension activities, including demonstrations and tours, and

d. extension pamphlets and leaflets.

On the converse, hsien government supervisors employed:

a. personal contacts,

b. training meetings,

c. general meetings, and

d. official correspondence.

It is quite significant that hsien government supervisors used more conference type meetings or authoritative type of official correspondence to reach township extension advisors while hsien Farmers' Association supervisors communicated with township advisors more through various extension activities and publications such as pamphlets and leaflets.

This again demonstrates that the general extension program relies heavily on the bureaucratic arrangements for implementing their extension programs while educational extension programs are based mainly on educational principles.

A comparison table of professional characteristics, views held of agricultural extension activities, and communication behavior of hsien supervisors in Taiwan is attached for easier reviewing. (See Appendix II).

II. IMPLICATIONS AND CONCLUSIONS

Through this analysis and study, it can be concluded that hsien Farmers' Association supervisors (educational extension workers) are quite different from hsien government supervisors (general extension workers) in their views held of extension activities and communication behaviors.

There was a marked tendency for hsien Farmers' Association supervisors to perform their supervisory extension by developing and helping township extension workers to carry on better educational extension programs while hsien government supervisors emphasized interpretation of government policies and passing on government instruction to township extension workers for execution. Its objective is to implement government production policies rather than to help township extension workers perform educational roles or develop farm people and life situations.

From the comparison of the two channels of farm information dissemination, the following implications seem to be important if further improvement is desired.

(1) A serious problem in developing countries is that there is a gap between technical advancement and farmers' readiness to change. Advanced technology may contribute to the economic growth only when the advanced technology is fully adopted and used by farmers. Unless farmers' attitudes toward betterment of their own life are changed, the upgrading of community life cannot be fully expected.

In the course of economic growth in the developing countries, it seems that both subsidy and educational extension programs may be essential for a certain period of time. Both of them have materially contributed to the rural development and technological advancement in Taiwan.

However, the continuous effort of training extension workers emphasized by the educational extension programs in the past decade has enhanced a broad view of extension, including democratic decision-making, and utilizing more extension techniques and resources to implement extension programs.

The concept of self-help is fundamental in rural development and also one of the ultimate goals of the educational program. Thus, it seems that more emphasis has to be put on the educational extension program to bring about behavioral changes in farmers. How this transaction of emphasis is made from subsidy to a more educational one is an important issue facing extension program planners in Taiwan today.

(2) Is it better that the two functions promoting government food programs and strictly educational work be more effectively undertaken by

one organization? If not, there is the problem of better coordination of the two in separate organizations.

Although this study cannot resolve these issues it does focus attention on the importance of these considerations for future development.

When two agencies engage in the same type of programs, overlapping of function and activity is unavoidable. However, this should be held to a minimum and perhaps also to those matters where the programs can supplement each other. It has been demonstrated that hsien Farmers' Association supervisors have a broad view of extension and use more extension methods and techniques in helping farmers improve farm practices. It would seem that this kind of philosophy, with the use of a variety of educational approaches, could also be functional to the government operated programs. Thus, training opportunity for government extension workers with the view of changing their perception of extension work and communication behavior similar to that of hsien Farmers' Association supervisors is indicated and recommended. This might result in better cooperation from local people and perhaps also better coordination of the two programs.

How this training program can be planned and implemented is a challenge to the provincial extension authority.

(3) In Taiwan, the educational extension program was introduced to such private organizations as the Farmers' Association which had existed in Taiwan for a long time. Characteristic of these, the tenure of extension supervisors in the Farmers' Associations is not as stable as in the government agencies. The frequent turnover of staff personnel may adversely affect the progress and quality of the extension program.

More attention to retaining high quality recruits to extension work seems warranted.

It would appear that the ultimate objective of extension work in developing countries is to improve the decisional abilities and productive capacities of farmers and ultimately the living conditions for their families generally. While food production may have to be initially emphasized, it would seem that the more general developmental objectives can be ultimately most emphasized. When and to what extent, is a paramount problem for the planners.

(4) Maximizing the information base for a modernizing agriculture in an expeditious manner requires the operation of an organizationally integrated technology-information-development dissemination system in which the ideas and contributions of the abstract sciences are integrated with the practical, current, and emerging concerns of farmers. This requires basic and applied research, innovation, adaptive testing and eventually disseminating the information to farmers and assisting them to integrate it into their own farming operations.

Colleges of agriculture are the institutes where highly sophisticated technologies and science researches are developed and conducted. However, this analysis reveals that colleges of agriculture are not very often used as the sources of farm information by both types of supervisors. This indicates, indirectly, the weak link of relationship between colleges of agriculture and the extension system.

It would seem that this link relationship between colleges of agriculture and the extension organization could well be more strengthened. How the colleges of agriculture can be tied more closely with extension efforts is worthy of careful consideration.

FOOTNOTES

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APPENDIX I

(English version)
November, 1966

TAIWAN DIFFUSION STUDY
Schedule III
(For administrators and extension supervisors)

NAME OF RESPONDENT_____ DATE OF INTERVIEW_____

ADDRESS_____ INTERVIEWER_____

DECK NUMBER	1	A
SCHEDULE SERIES	2	III
SCHEDULE NUMBER _____	3-5	
SEE ATTACHED SHEET FOR	6-35	

I. GENERAL INFORMATION

1. Position of respondent
(CIRCLE NUMBER IN ACCORDANCE WITH SAMPLING SHEET AND VERIFY FROM RESPONDENT)

a.	Township FA general manager	1
b.	Township Public Office chief	2
c.	Hsien FA head of extension	3
d.	Hsien FA extension supervisor	4
e.	Hsien government extension supervisors assigned to FA	5
f.	Hsien government head of agriculture/ animal husbandry section	6
g.	Hsien government agriculture/animal husbandry workers	7
h.	Provincial FA extension supervisor	8
i.	PDAF extension supervisor	9

(LETTERS FOLLOWING QUESTIONS REFER TO POSITIONS LISTED IN QUESTION "1". WHERE LETTERS ARE LISTED FOLLOWING QUESTION, ASK ONLY OF RESPONDENT OCCUPYING DESIGNATED POSITIONS. OTHERWISE, ASK ALL RESPONDENTS)

2. (ALL) How long have you held the present position? (ENTER YEARS) _____ 36-37

3. (c d e f g h i) How long have you been in extension work (GENERAL OR EDUCATIONAL) (ENTER YEARS) _____ 38-39

4. (ALL) Were you an extension worker prior to the present position? 0 1 2 9 40

(IF YES,) What position in extension? _____ 41

For how long did you hold this position? (ENTER YEARS) _____ 42

5. (e) As a hsien government extension supervisor assigned to the hsien FA, are there conflicting expectations of your job between the government and the FA? 0 1 2 9 43

(IF YES,) Explain: 44

6. (c d e f g h i) Do you think the work you are doing is in the nature of: (CIRCLE ONE)

DA	0	
General extension	1	
Extension education	2	
Both (DON'T READ)	3	
NA	9	45

7. (a b c f h i) How many extension workers are there in your organization or department? _____ 46

How many of them are:

In general extension?	_____	47
In extension education?	_____	48
In both?	_____	49

(a c f h i) How many of these workers are:

Farm extension workers	_____	50
4-H Club workers	_____	51
Home economics workers	_____	52
General extension workers	_____	53
Veterinarians	_____	54
Other workers	_____	55

8. (a b c f) Of P.O./hsien government workers, are there any assigned to the township/hsien Farmers' Association? 0 1 2 9 56

(IF YES, COMPLETE THE REST OF THIS QUESTION) How many persons? _____ 57

How long ago was this arrangement made? _____ 58

Has it ever been interrupted? 0 1 2 9 59

(IF YES,) For how long? _____ 60

9. (a b c f) Are extension workers in your organization/department required to do other than their extension responsibilities? 0 1 2 9 61
(AS ENGINEERING, BUSINESS, SUPPLY AND MARKETING, CREDIT, ETC.)

(IF YES,) What is the nature of the non-extension work? _____ 62

(IF NO,) Have any of the extension workers in the organization/department been assigned non-extension jobs during the past year? 0 1 2 9 63

(IF YES,) What is the nature of the assignment? _____ 64

10. (a b c f h i) How many of the extension workers have left the organization/department during the past three years? _____ 65

(IF ANY, HAND RESPONDENT CARD NO. 1 AND ASK)
Reasons why? (THEN CHECK ALL REASONS THAT APPLY)

Temporary transfer to other departments within the organization	0 1 2 9	66
Permanent transfer to other departments within the organization	0 1 2 9	67
Resignation	0 1 2 9	68
Dismissal	0 1 2 9	69
Other reasons (SPECIFY) _____	0 1 2 9	70

11. (a) If the portion of the Farmers' Association law pertaining to the allocation of funds for extension could be revised, what would you regard as the most appropriate percentage of the profit that should be set aside for extension work? 71

From supply and marketing? _____ % 72

From credit? _____ % 73

12. (ALL) Comparing the job of a township extension worker (FA OR P.O., GENERAL OR EDUCATIONAL) with others requiring similar training (HAND RESPONDENT CARD 2 AND ASK) 74

	Much below	Somewhat below	About the same (DON'T READ)	Somewhat above	Much above	Not definite (DON'T READ)	
do you think the position of the extension worker is	1	2	3	4	5	9	75
how much do you think his position is respected by people in general	1	2	3	4	5	9	76

13. (c d e f g h i) Thinking of extension work as a whole, do you feel you are more: (HAND RESPONDENT CARD 4)

DA	0
a part of the overall extension system	1
a part of the organization by which you are employed	2
a representative of the farmers	3
NA	9

77

14. (ALL) Do you think the township extension worker (P.O. OR FA) is more: (HAND RESPONDENT CARD 3)

DA	0	
a part of the overall extension system	1	
a part of the organization by which he is employed	2	
a representative of the farmers	3	
NA	9	78

79-80

II. JOB PERCEPTION AND PERFORMANCE

15. (ALL) OBJECTIVES OF EXTENSION: (HAND RESPONDENT CARD 4 AND ASK)

A. What would you say are the objectives of extension? (CIRCLE "YES" OR "NO" IN COL. A.)

B. Which of these do you think should be emphasized most and second most? (ENTER "1" AND "2" IN COL. B TO INDICATE ORDER OF EMPHASIS.)

Objectives of extension	Col.	A Is this an objective Yes	A No	B Most and 2nd most emphasized
1. To help farmers to develop greater competence in farming	36	1	2	
2. To teach farmers improved production practices	37	1	2	
3. To develop local leadership	38	1	2	
4. To help make plans for the farming enterprise	39	1	2	
5. To help carry out government production plans	40	1	2	
6. To help improve the living of farm people	41	1	2	
7. To render service to farm people (SUCH AS HELPING IN SUPPLY AND MARKETING)	42	1	2	

1	B
2	III
3-35	

16. (ALL) If extension is viewed on the basis of these objectives, what proportion of them do you think your township (IN THE CASE OF a AND b) or the townships in general (IN THE CASE OF c, d, e, f, g, h, AND i) have achieved? (HAND RESPONDENT CARD 5)

DA	0	
All	1	
Most	2	
Some	3	
None	4	
NA	9	45

43

44

17. (ALL) Here are some of the important activities of extension workers. (HAND RESPONDENT CARD 6 AND ASK)

A. I would like for you to rank them in terms of emphasis you think township extension workers in general have actually placed on them. (ENTER NUMBERS IN COL. A TO INDICATE ORDER.)

B. How would you think they should emphasize these activities? (ENTER NUMBERS IN COL. B TO INDICATE ORDER.)

Activities of township Extension workers	Col.	A Actual order of emphasis	Col.	B Ideal order of emphasis
1. Farm or home visits	46		51	
2. Working with people in groups and meetings	47		52	
3. Answering farmers' questions in office	48		53	
4. Contests, demonstrations, tours, etc.	49		54	
5. Helping in supply and marketing	50		55	

18. (ALL) If what you or hsien/provincial supervisors (FOR TOWNSHIP FA MANAGER AND P.O. CHIEF USE LATTER) expect of the township extension workers (FA OR P.O.) do not agree with the expectations of the general manager/P.O. chief or yourself, what action would you say the extension workers should take? (HAND RESPONDENT CARD 7 AND CIRCLE ANSWERS.)

DA	0	
Do what you or hsien/provincial supervisor demands	1	
Do what the immediate supervisor demands	2	
Neglect both and do what they think is appropriate	3	
Delay their action until a solution is worked out	4	
NA or don't know (DON'T READ)	9	56

19. (c d e f g h i) Which of these people (HAND RESPONDENT CARD 8) do you think have the most decisive influence upon the work of the township extension worker? (CIRCLE ONE)

Farmers	1	
His extension co-workers	2	
Township FA general manager/ P.O. chief	3	
Head of extension/reconstruction section	4	
Hsien FA/Hsien government extension supervisor	5	
PFA/PDAF extension supervisors	6	
Township assembly/township FA directors or supervisors	7	
Other people (SPECIFY)_____	8	57

20. (c d e f g h i) Here are a list of the possible day-to-day activities of Hsien/provincial supervisors (HAND RESPONDENT CARD 9 AND ASK:)

A. What would you say are your day-to-day activities? (CIRCLE "YES" OR "NO" IN COL. A.)

B. What are actually your first most and 2nd most emphasized activities? (ENTER NUMBER UNDER "ACTUAL EMPHASIS" OF PART B.)

The emphasis you think would best fit the needs of township extension workers. (ENTER NUMBER UNDER "EMPHASIS THAT FITS THE NEEDS OF TWP. EXT. WORKERS" OF PART B.)

Daily activities	A Whether it is your job				
	Col.	DA	Yes	No	NA
1. Farm or home visits	58	0	1	2	9
2. Interpreting extension policies	59	0	1	2	9
3. Planning or conducting hsien or provincial events or meetings	60	0	1	2	9
4. Coordinating township extension work within hsien	61	0	1	2	9
5. Helping develop plans of work	62	0	1	2	9
6. Training township extension workers	63	0	1	2	9
7. Training local leaders	64	0	1	2	9
8. Evaluating township extension work	65	0	1	2	9
9. Other (SPECIFY)	66	0	1	2	9

B Order of emphasis (ENTER NUMBER)	Actual emphasis		Emphasis that fits the needs of twp. ext. workers	
	Col.	Activities	Col.	Activities
Most	67		69	
2nd most	68		70	

71-80 Blank

21. (c d e f g h i) I have a list of ways in which subject-matter specialists can help extension workers. (HAND RESPONDENT CARD 10 AND ASK)

A. How do you think subject-matter specialists should help you? (RECORD NUMBER IN COL. A.)

B. What kinds of help have you received from them during the past year? (CIRCLE NUMBER IN COL. B.)

C. What help do you think they should give township extension workers? (CIRCLE NUMBER IN COL. C.)

D. Which of these do you think specialists in general have actually or should emphasize most and 2nd most? (ENTER ANSWERS IN PART D.)

What specialists can help	A					B Help received					C Help that should be given township ext. workers				
	Col.	DA	Yes	No	NA	Col.	DA	Yes	No	NA	Col.	DA	Yes	No	NA
	1		C												
1. To visit farm or home upon invitation	36	0	1	2	9	44	0	1	2	9	52	0	1	2	9
2. To visit farm or home directly	37	0	1	2	9	45	0	1	2	9	53	0	1	2	9
3. To help train extension workers	38	0	1	2	9	46	0	1	2	9	54	0	1	2	9
4. To help train local leaders	39	0	1	2	9	47	0	1	2	9	55	0	1	2	9
5. To prepare subject-matter pamphlets, leaflets, etc.	40	0	1	2	9	48	0	1	2	9	56	0	1	2	9
6. To help conduct demonstrations, tours, etc.	41	0	1	2	9	49	0	1	2	9	57	0	1	2	9
7. To give or write radio talks and write newspaper articles	42	0	1	2	9	50	0	1	2	9	58	0	1	2	9
8. Other (SPECIFY)	43	0	1	2	9	51	0	1	2	9	59	0	1	2	9

D Order of emphasis	Col.	Actual (FOR SUPERVISORS)	Col.	Should (FOR SUPERVISORS)	Col.	Should (FOR TWP. EXT. WORKERS)
Most	60		62		64	
2nd most	61		63		65	

E. Do you think the District Agricultural Improvement Station workers are mainly:

Subject-matter specialists	1	
Researchers	2	
Both (DON'T READ)	3	66

F. Do you think the Research Institute workers are mainly:

Subject-matter specialists	1	
Researchers	2	
Both (DON'T READ)	3	67

G. (c d e f g h i) Do you think yourself/ hsien government agricultural or animal husbandry workers are mainly: (HAND RESPONDENT CARD 11. IF THE RESPONDENT IS A HSIEN GOVERNMENT WORKER, USE "YOURSELF" IN STATING THE QUESTION.)

Subject-matter specialists	1	
Extension workers	2	
Administrative workers	3	
Subject-matter specialists and administrative workers	4	
Extension and administrative workers	5	
Subject-matter specialists and extension workers	6	
All three (DON'T READ)	7	
NA	9	68

H. (c d e f g h i) Do you think yourself/ PDAF subject-matter division (SUCH AS AGRICULTURAL PRODUCTION, SPECIAL CROP, ANIMALY HUSBANDRY DIVISIONS) workers are mainly: (HAND RESPONDENT CARD 11. IF THE RESPONDENT IS A PDAF WORKERS, USE "YOURSELF" IN STATING THE QUESTION.)

Subject-matter specialists	1	
Extension workers	2	
Administrative workers	3	
Subject-matter specialists and administrative workers	4	
Extension and administrative workers	5	
Subject-matter specialists and extension workers	6	
All three (DON'T READ)	7	
NA	9	69
		70-80

22. (c d e f g h i) Here are a list of people and organizations with whom extension workers have contacts (HAND RESPONDENT CARD 12 AND ASK)

A. First of all, I would like for you to indicate during the past year

1. Whether you have had personal contacts with them in your extension work? (CIRCLE "YES" OR "NO" IN COL. A.)

2. About how many times you have met and talked with them? (RECORD ANSWER IN COL. A.)

3. Generally who initiated the contacts? ("0" REPRESENTS "DOES NOT APPLY," "1" STANDS FOR "YOU MOSTLY," "2" FOR "THEY MOSTLY," AND "3" FOR "ABOUT HALF AND HALF," BUT DO NOT READ.)

B. 1. Have you attended meetings and activities with them during the past year? (RECORD "YES" OR "NO" IN COL. B.)

2. How many times have you attended such meetings that were attended or conducted by the people listed. (ENTER APPROXIMATION)

	A Personal Contact										B Group Contact					
	Contacts during the past year						Who initiated				Contacts during the past yea					
	Col.	DA	Yes	No	Col.	Code	App. No.of Times	Col.	DA	You	They	½ & ½	Col.	DA	Yes	No	Col.	Code	App. No.o Time
01 Farmers	1 36	D 0	1	2	49			62	0	1	2	3	1 36	E 0	1	2	49		
02 DAIS workers	37	0	1	2	50			63	0	1	2	3	37	0	1	2	50		
03 Research Institute workers	38	0	1	2	51			64	0	1	2	3	38	0	1	2	51		
04 Twp. FA ext. advisors	39	0	1	2	52			65	0	1	2	3	39	0	1	2	52		
05 P.O. ext. workers	40	0	1	2	53			66	0	1	2	3	40	0	1	2	53		
06 Hsien FA ext. supervisor	41	0	1	2	54			67	0	1	2	3	41	0	1	2	54		
07 Hsien gov't. ext. sup.	42	0	1	2	55			68	0	1	2	3	42	0	1	2	55		
08 PFA ext. sup.	43	0	1	2	56			69	0	1	2	3	43	0	1	2	56		
09 PDAF ext. sup.	44	0	1	2	57			70	0	1	2	3	44	0	1	2	57		
10 Agr. college personnel	45	0	1	2	58			71	0	1	2	3	45	0	1	2	58		
11 TSC or Monopoloy Bureau workers	46	0	1	2	59			72	0	1	2	3	46	0	1	2	59		
12 Food Bureau workers	47	0	1	2	60			73	0	1	2	3	47	0	1	2	60		
13 JCRR workers	48	0	1	2	61			74	0	1	2	3	48	0	1	2	61		

75-80 Blank

62-80 Blank

C. What is the main purpose of the personal contacts? (HAND RESPONDENT CARD 13 AND GET ANSWERS FOR THOSE WITH WHOM RESPONDENT HAD PERSONAL CONTACTS AND ENTER NUMBER.)

	1	F
	2-35	

Purpose	People or Organization		
1. Seeking information (KNOWLEDGE, SKILL, OR GENERAL INFORMATION)	Farmers	36	
2. Supervision (ADVICE, EVALUATION, PLANNING, ETC.)	District Agricultural Improvement Station workers	37	
3. Extension activities	Research Institute workers	38	
4. Financial matters	Township FA extension advisors	39	
5. Training	P.O. extension workers	40	
6. Other (SPECIFY) _____	Hsien FA extension supervisors	41	
	Hsien government extension supervisors	42	
	PFA extension supervisors	43	
	PDAF extension supervisors	44	
	Agricultural colleges	45	
	Taiwan Sugar Corporation or Monopoly Bureau workers	46	
	Food Bureau workers	47	
	Joint Commission on Rural Reconstruction workers	48	

23. (ALL) Here is a list of possible functions of agricultural extension advisory committees. (HAND RESPONDENT CARD 14 AND ASK)

A. What do you think the functions of the hsien extension advisory committee are? (CIRCLE "YES" OR "NO" IN COL. A. IF THE RESPONDENT DOES NOT KNOW THE ANSWER, CIRCLE "9" AFTER PROBING.)

Which of these are actually being and should be emphasized most and 2nd most by the Hsien extension advisory committee? (ENTER NUMBER IN PART C.)

B. What do you think the functions of the township extension advisory committee are? (CIRCLE "YES" OR "NO" IN COL. B. IF THE RESPONDENT DOES NOT KNOW THE ANSWER, CIRCLE "9" AFTER PROBING.)

Which of these do you think are actually being and should be emphasized most and 2nd most by the township extension advisory committee? (ENTER NUMBER IN PART C.)

Functions	A. Hsien ext. advisory committee		B. Twp. ext. advisory committee	
	Col.	DA Yes No NA	Col.	DA Yes No NA
			1	G
1. To evaluate extension work	49	0 1 2 9	36	0 1 2 9
2. To approve extension plans and budget	50	0 1 2 9	37	0 1 2 9
3. To get coordination and cooperation from local organizations	51	0 1 2 9	38	0 1 2 9
4. To interpret farmers' needs	52	0 1 2 9	39	0 1 2 9
5. To participate in planning extension work	53	0 1 2 9	40	0 1 2 9
6. To help promote extension work	54	0 1 2 9	41	0 1 2 9
7. Other (SPECIFY)	55	0 1 2 9	42	0 1 2 9

C. Order of emphasis	Actual		Should		Actual		Should	
	Col.	Function	Col.	Function	Col.	Function	Col.	Function
Most	56		58		43		45	
2nd most	57		59		44		46	

60-80 Blank

D. (c d e f g h i) If viewed in terms of these functions what proportion of them do you think the hsien committee has accomplished?

DA	0	
All	1	
Most	2	
Some	3	
None	4	
NA	9	47

E. (ALL) What proportion of these functions do you think township committees in general have accomplished?

DA	0	
All	1	
Most	2	
Some	3	
None	4	
NA	9	48

F. (h i) Do you think the provincial extension advisory committee has been helpful to the extension work of the island?

0	1	2	9	49

Comment:

50

51

24. (c d e f g) How favorable do you think the persons or organizations listed here are toward your work? (HAND RESPONDENT CARD 15 AND READ ALL GRADATIONS BUT "INDIFFERENT" AND CIRCLE APPROPRIATE ANSWERS.)

Persons or Organizations	DA	Very Un-favorable	Un-favorable	Indifferent (DON'T READ)	Favorable	Very Favorable	Not Definite or NA		
Hsien FA general manager	0	1	2	3	4	5	9	52	
Magistrate	0	1	2	3	4	5	9	53	
Hsien extension advisory committee	0	1	2	3	4	5	9	54	
Subject-matter specialists	0	1	2	3	4	5	9	55	
Researchers	0	1	2	3	4	5	9	56	
Other (SPECIFY)	0	1	2	3	4	5	9	57	
	0	1	2	3	4	5	9	58	
								59	
								60	
								61-80	

25. (c d e f g h i)
SOURCES OF FARM INFORMATION (Questioning procedure)

(HAND RESPONDENT CARD NO. 16 AND EXPLAIN THAT THE NUMBERED ITEMS ARE POTENTIAL SOURCES OF FARM INFORMATION AND THOSE NOT NUMBERED ARE CHANNELS THROUGH WHICH THE INFORMATION MAY BE OBTAINED FROM EACH SOURCE. THEN ASK:)

A. Did you get farm information from (NAME SOURCE) that you passed on to extension workers or farmers during the past year? (CIRCLE APPROPRIATE NUMBER TO INDICATE ANSWER. IF "YES", ASK QUESTIONS "B", "C", AND "D" FOR THE PARTICULAR SOURCE. IF ANSWER IS "NO", DIRECT ATTENTION TO THE NEXT SOURCE ON THE LIST USING QUESTION "A" FORMAT FOR EACH SOURCE IN SUCCESSION.)

B. Would you say that you used the source regularly?

C. Did you get information from (NAME SOURCE) through (NAME EACH CHANNEL LISTED AND ASK IN SUCCESSION)?

D. Which of these channels did you use regularly? (OF THOSE INDICATED AS USED)

(FOLLOW THIS LINE OF QUESTIONING FOR EACH SOURCE. CIRCLE APPROPRIATE CODE IN EACH CASE.)

25. SOURCES OF FARM INFORMATION

Sources of farm information	A Whether received information				B Whether used regularly			
Channel	Col.	DA	Yes	No	Col.	DA	Yes	No
	1		H		1		J	
01 DAIS	36	0	1	2	36	0	1	2
Personal contact	37	0	1	2	37	0	1	2
Group contact	38	0	1	2	38	0	1	2
Farm magazines	39	0	1	2	39	0	1	2
Pamphlets, leaflets, etc.	40	0	1	2	40	0	1	2
Radio	41	0	1	2	41	0	1	2
Other (SPECIFY)	42	0	1	2	42	0	1	2
02 TARI (OR TLRI)	43	0	1	2	43	0	1	2
Personal contact	44	0	1	2	44	0	1	2
Group contact	45	0	1	2	45	0	1	2
Farm magazines	46	0	1	2	46	0	1	2
Pamphlets, leaflets, etc.	47	0	1	2	47	0	1	2
Radio	48	0	1	2	48	0	1	2
Other (SPECIFY)	49	0	1	2	49	0	1	2
03 Agricultural colleges	50	0	1	2	50	0	1	2
Personal contact	51	0	1	2	51	0	1	2
Group contact	52	0	1	2	52	0	1	2
Pamphlets, leaflets, etc.	53	0	1	2	53	0	1	2
Other (SPECIFY)	54	0	1	2	54	0	1	2
04 VA school	55	0	1	2	55	0	1	2
Personal contact	56	0	1	2	56	0	1	2
Group contact	57	0	1	2	57	0	1	2
Pamphlets, leaflets, etc.	58	0	1	2	58	0	1	2
Other (SPECIFY)	59	0	1	2	59	0	1	2
05 PDAF	60	0	1	2	60	0	1	2
Personal contact	61	0	1	2	61	0	1	2
Group contact	62	0	1	2	62	0	1	2
Farm magazines	63	0	1	2	63	0	1	2
Pamphlets, leaflets, etc.	64	0	1	2	64	0	1	2
Radio	65	0	1	2	65	0	1	2
Other (SPECIFY)	66	0	1	2	66	0	1	2
06 HFA	67	0	1	2	67	0	1	2
Personal contact	68	0	1	2	68	0	1	2
Group contact	69	0	1	2	69	0	1	2
Pamphlets, leaflets, etc.	70	0	1	2	70	0	1	2
Radio	71	0	1	2	71	0	1	2
Other (SPECIFY)	72	0	1	2	72	0	1	2
07 Hsien government	73	0	1	2	73	0	1	2
Personal contact	74	0	1	2	74	0	1	2
Group contact	75	0	1	2	75	0	1	2
Pamphlets, leaflets, etc.	76	0	1	2	76	0	1	2
Radio	77	0	1	2	77	0	1	2
Other (SPECIFY)	78	0	1	2	78	0	1	2
	Cols. 79-80 Blank				Cols. 79-80 Blank			

Sources of farm information Channel	A Whether received information Col.	DA	Yes	No	B Whether used regularly Col.	DA	Yes	No
08 Taiwan Sugar Corporation	1 36	0	I 1	2	1 36	0	K 1	2
Personal contact	37	0	1	2	37	0	1	2
Group contact	38	0	1	2	38	0	1	2
Radio	39	0	1	2	39	0	1	2
Other (SPECIFY)	40	0	1	2	40	0	1	2
09 Monopoly Bureau	41	0	1	2	41	0	1	2
Personal contact	42	0	1	2	42	0	1	2
Group contact	43	0	1	2	43	0	1	2
Radio	44	0	1	2	44	0	1	2
Other (SPECIFY)	45	0	1	2	45	0	1	2
10 Township FA	46	0	1	2	46	0	1	2
Personal contact	47	0	1	2	47	0	1	2
Group contact	48	0	1	2	48	0	1	2
Pamphlets, leaflets, etc.	49	0	1	2	49	0	1	2
Other (SPECIFY)	50	0	1	2	50	0	1	2
11 Township P.O.	51	0	1	2	51	0	1	2
Personal contact	52	0	1	2	52	0	1	2
Group contact	53	0	1	2	53	0	1	2
Pamphlets, leaflets, etc.	54	0	1	2	54	0	1	2
Other (SPECIFY)	55	0	1	2	55	0	1	2
12 PFA	56	0	1	2	56	0	1	2
Personal contact	57	0	1	2	57	0	1	2
Group contact	58	0	1	2	58	0	1	2
Pamphlets, leaflets, etc.	59	0	1	2	59	0	1	2
Other (SPECIFY)	60	0	1	2	60	0	1	2
13 Food Bureau	61	0	1	2	61	0	1	2
Personal contact	62	0	1	2	62	0	1	2
Group contact	63	0	1	2	63	0	1	2
Pamphlets, leaflets, etc.	64	0	1	2	64	0	1	2
Other (SPECIFY)	65	0	1	2	65	0	1	2
14 Radio	66	0	1	2	66	0	1	2
15 Farm magazines	67	0	1	2	67	0	1	2
16 Books	68	0	1	2	68	0	1	2
17 Newspaper	69	0	1	2	69	0	1	2
18 Extension colleagues	70	0	1	2	70	0	1	2
19 Farmers	71	0	1	2	71	0	1	2
20 Dealers	72	0	1	2	72	0	1	2
21 JCRR	73	0	1	2	73	0	1	2
	74-80 Blank				74-80 Blank			

E. From which source did you get most information? (REFER TO LIST) (ENTER NUMBER OF SOURCE AT RIGHT) _____

2nd most information? _____

F. In which of these sources do you have most confidence? _____

2nd most confidence? _____

G. Which of these sources do you regard as most handy? _____

2nd most handy? _____

1	L
36-37	
38-39	
40-41	
42-43	
44-45	
46-47	
48-80	

26. (c d e f g h i) COMMUNICATION OF FARM INFORMATION: Here are some channels through which you can communicate information. (HAND RESPONDENT CARD 17 AND ASK)

A. During the past year what channels have you used to communicate farm information to extension workers? (CIRCLE "YES" OR "NO" IN COL. A.)

Which of these have you used most and 2nd most in communicating farm information to extension workers during the past year? (ENTER NUMBER IN PART C.)

B. During the past year what channels have you used to communicate farm information to farmers? (CIRCLE "YES" OR "NO" IN COL. B.)

Which of these have you used most and 2nd most in communicating farm information to farmers? (ENTER NUMBER IN PART C.)

Channels of Communication	A. To extension workers				B. To farmers			
	Col.	DA	Yes	No	Col.	DA	Yes	No
0 1 Personal contacts	1 / 36	M / 0	1	2	56	0	1	2
0 2 Group contacts	37	0	1	2	57	0	1	2
0 3 Training meetings	38	0	1	2	58	0	1	2
0 4 General meetings	39	0	1	2	59	0	1	2
0 5 Various extension activities (INCLUDING DEMONSTRATION, TOURS, ETC.)	40	0	1	2	60	0	1	2
0 6 Mass media	41	0	1	2	61	0	1	2
0 7 Extension pamphlets, leaflets, and other publications issued by	42	0	1	2	62	0	1	2
0 8 PDAF	43	0	1	2	63	0	1	2
0 9 DAIS	44	0	1	2	64	0	1	2
1 0 Research institute	45	0	1	2	65	0	1	2
1 1 Agricultural colleges	46	0	1	2	66	0	1	2
1 2 Other organizations (SPECIFY)	47	0	1	2	67	0	1	2
1 3 Circular letters	48	0	1	2	68	0	1	2
1 4 Farm magazines	49	0	1	2	69	0	1	2
1 5 Radio	50	0	1	2	70	0	1	2
1 6 Newspaper articles	51	0	1	2	71	0	1	2
1 7 Exhibits	52	0	1	2	72	0	1	2
1 8 Through official correspondence	53	0	1	2	73	0	1	2
C. Use of channels	Col.	Channel			Col.	Channel		
Most	54				74			
2nd most	55				75			

76-80 Blank

27. (c d e f g h i) We can look at farm information sources in many ways. For example, we can view them as good or bad, scientific or unscientific, knowledgeable or not knowledgeable. Here is a list of ways of viewing the sources of farm information. (HAND RESPONDENT CARD 18) Let's use "up to date" and "out of date" for example. We can use this end (POINT OUT AND ILLUSTRATE SCALE BELOW) to represent "up to date," while the other end is used to represent "out of date." There are five blank spaces in between (POINT OUT). The middle one stands for neither "up to date" nor "out of date." The more to the left of this middle space, the more "up to date" the source is. On the extreme left is the space representing "most up to date." The more to the right of the middle space, the more "out of date," with the extreme right space representing "most out of date." (IF NECESSARY, GIVE FURTHER EXPLANATION AS TO HOW THE RATING IS DONE.)

up to date _____ _____ _____ _____ _____ out of date

		1	N
First, think of TARI (OR TLRI) as a source of farm information		36	
Bad	Good	37	
Not knowledgeable	Knowledgeable	38	
Up to date	Out of date	39	
Unscientific	Scientific	40	
Warm	Cool	41	
Practical	Impractical	42	
Dependable	Undependable	43	
Unhandy	Handy	44	
Think of DAIS as a source of farm information		45	
Bad	Good	46	
Not knowledgeable	Knowledgeable	47	
Up to date	Out of date	48	
Unscientific	Scientific	49	
Warm	Cool	50	
Practical	Impractical	51	
Dependable	Undependable	52	
Unhandy	Handy	53	

Then think of agricultural colleges as a source of farm information

Bad					Good	54	
Not knowledgeable					Knowledgeable	55	
Up to date					Out of date	56	
Unscientific					Scientific	57	
Warm					Cool	58	
Practical					Impractical	59	
Dependable					Undependable	60	
Unhandy					Handy	61	
						62	

Think of farm magazines as a source of farm information

Bad					Good	63	
Not knowledgeable					Knowledgeable	64	
Up to date					Out of date	65	
Unscientific					Scientific	66	
Warm					Cool	67	
Practical					Impractical	68	
Dependable					Undependable	69	
Unhandy					Handy	70	
						71	

Finally, think of JCRR as a source of farm information

Bad					Good	72	
Not knowledgeable					Knowledgeable	73	
Up to date					Out of date	74	
Unscientific					Scientific	75	
Warm					Cool	76	
Practical					Impractical	77	
Dependable					Undependable	78	
Unhandy					Handy	79	
						80	

28. Thinking of people who are related to your job as an extension worker, there are a variety of ways of looking at the relationship. We can look at it as friendly or unfriendly, cooperative or uncooperative, helpful or not helpful. (INTERVIEWER: EXPLAIN TO THE RESPONDENT IN ACCORDANCE WITH THE MANNER IN WHICH QUESTION 27 WAS EXPLAINED, AND REMIND HIM OF THE SPACES BETWEEN THE EXTREMES.)

							1	0
	(c d e f g) Your relationships with Hsien government extension workers/ Hsien FA extension workers							
Congenial	____	____	____	____	____	Uncongenial	36	
Not close	____	____	____	____	____	Close	37	
Cooperative	____	____	____	____	____	Uncooperative	38	
Warm	____	____	____	____	____	Cool	39	
Independent	____	____	____	____	____	Dependent	40	
Uncoordinated	____	____	____	____	____	Coordinated	41	
Unfriendly	____	____	____	____	____	Friendly	42	
Helpful	____	____	____	____	____	Not helpful	43	
							44	
	(c d e f g) Your relationships with DAIS workers						45	
Congenial	____	____	____	____	____	Uncongenial	46	
Not close	____	____	____	____	____	Close	47	
Cooperative	____	____	____	____	____	Uncooperative	48	
Warm	____	____	____	____	____	Cool	49	
Independent	____	____	____	____	____	Dependent	50	
Uncoordinated	____	____	____	____	____	Coordinated	51	
Unfriendly	____	____	____	____	____	Friendly	52	
Helpful	____	____	____	____	____	Not helpful	53	

(c d e f g) Your relationships with township FA/P.O. extension workers

(h i) Your relationships with PFA/PDAF extension workers

Congenial	____	____	____	____	____	Uncongenial	55
Not close	____	____	____	____	____	Close	56
Cooperative	____	____	____	____	____	Uncooperative	57
Warm	____	____	____	____	____	Cool	58
Independent	____	____	____	____	____	Dependent	59
Uncoordinated	____	____	____	____	____	Coordinated	60
Unfriendly	____	____	____	____	____	Friendly	61
Helpful	____	____	____	____	____	Not helpful	62

(h i) Your relationship with DAIS

(a b) Your relationship with P.O./township FA

Congenial	____	____	____	____	____	Uncongenial	65
Not close	____	____	____	____	____	Close	66
Cooperative	____	____	____	____	____	Uncooperative	67
Warm	____	____	____	____	____	Cool	68
Independent	____	____	____	____	____	Dependent	69
Uncoordinated	____	____	____	____	____	Coordinated	70
Unfriendly	____	____	____	____	____	Friendly	71
Helpful	____	____	____	____	____	Not helpful	72

54	
63	
64	
73-80	

APPENDIX II

COMPARISON OF PROFESSIONAL CHARACTIERSTICS, VIEWS HELD OF AGRICULTURAL EXTENSION ACTIVITIES, AND COMMUNICATION BEHAVIOR OF HSIEN SUPERVISORS IN TAIWAN

Dependent Variables	Hsien Farmers' Association Supervisors	Hsien Government Supervisors
1. Percent in present job for more than 15 years	None	70 percent
2. Percent in present job for less than 5 years	34.8 percent	4 percent
3. Percent in extension work for more than 25 years	13 percent	40 percent
4. Percent in extension work for less than 10 years	39.1 percent	12 percent
5. Stability of tenure on job	Unstable	Stable
6. Conceived nature of work in which engaged	Extension Educational Work	General Extension Work
7. Orientation to program	More program oriented (a part of overall extension system)	More organization oriented (a part of organization employed)
8. Activities emphasized	More supervisory oriented, emphasized developing plans and training local leaders	More authority oriented, emphasized coordinating work, interpreting policies and farm and home visits

Dependent Variables	Hsien Farmers' Association Supervisors	Hsien Government Supervisors
9. Perception of own responsibility	Extension advisement workers	Extension administrators
10. Views held of objectives of extension	Broad sense of extension; develop farm people, local leaders and improve community life as a whole	Narrow sense of extension; teach farmers improved practices
11. Views held of extension activities should be emphasized by township advisors	Work with people in groups and meetings	Make more farm and home visits
12. Views held of what action should be taken in case of conflicting situation	Follow what immediate chiefs demanded	Follow what hsien provincial supervisors demanded
13. Influence over township extension workers	Greater than township Farmers' Association extension section chief	Less than public office reconstruction section chief
14. Views held of subject-matter specialists' roles	1. help train extension workers 2. prepare pamphlets 3. write articles and prepare radio talks 4. help train local leaders	1. help train extension workers 2. prepare pamphlets 3. help conduct demonstrations and tours 4. visit farms and homes directly without being invited

Dependent Variables	Hsien Farmers' Association Supervisors	Hsien Government Supervisors
15. Views held of activities which should be emphasized	Group teaching, mass media oriented	Individual guidance, less mass media oriented
16. Views held of what should be emphasized by subject-matter specialists	1. prepare subject matter pamphlets and leaflets 2. prepare more radio talks more developing type of activities	1. help conduct demonstrations and tours More technical assistance type of activities
17. Views held of what kind of help should be given to advisors by subject matter specialists	1. help farm and home visits upon request 2. provide subject matter materials 3. help train local leaders	1. help train extension workers 2. make farm and home visits directly without being requested
18. Degree of dependence upon subject matter specialists	Ask for help only when it is necessary	Depend heavily upon the assistance of subject matter specialists
19. Understanding of the function of extension advisory committee	Well understood	Poor understood
20. Views held of the main function of advisory committee	1. get coordination and cooperation from local organizations 2. approve extension plans and budgets	1. help promote extension work
21. Fail in indicating what advisory committee should emphasize	None	24 percent

Dependent Variables	Hsien Farmers' Association Supervisors	Hsien Government Supervisors
22. Views held of ideal function of extension advisory committee	1. get coordination and cooperation from local organizations 2. approve extension plans and budgets 3. help promote extension work More specific in nature	1. help promote extension work Broad view in nature
23. Views held of favorability of selected significant others to own extension activities	Generally high	Generally not high except subject matter specialists and researchers
24. Contacts made with personal and organizations with which contacts were made for more than 80 times in a year	1. District Improvement Stations 2. hsien governments 3. township Farmers' Association advisors 4. Township Public Office Advisors 5. farmers Mainly make contacts with people in corresponding level or lower level agencies	1. District Improvement Stations 2. research 3. Sugar Corporation 4. Food Bureau 5. Provincial Department of Agriculture and Forestry 6. Hsien Farmers' Association 7. Township Farmers' Association 8. Township Public Office 9. farmers Contacts were made not only with personnel in corresponding and lower level agencies but also frequently with upper level agencies

Dependent Variables	Hsien Farmers' Association Supervisors	Hsien Government Supervisors
25. Who usually initiated the contacts (a) with corresponding and lower level agencies (b) with upper level agencies	Self usually They usually	Self usually Both sides about equally Asked heavily for instruction
26. Purpose of contacts: (a) with farmers	More developing nature of contacts such as training and extension activities and less instructional supervision	More instructional supervision and less developing nature of contacts
(b) with township extension workers	To promote working relationships through extension activities (help people help themselves)	To supervise extension program through instruction (bureaucratic in nature)
(c) with other extension workers in commercial commodity extension channels	Maintain good relationships through participating in extension activities	Less relationship was maintained
27. Sources of farm information regularly used by more than 80 percent	1. District Improvement Stations 2. Provincial Department of Agriculture and Forestry 3. Provincial Farmers' Association 4. Farm magazines 5. reference books More sources were used for deriving information	1. Provincial Department of Agriculture and Forestry Exclusively depended on one source

Dependent Variables	Hsien Farmers' Association Supervisors	Hsien Government Supervisors
28. Sources of farm information less regularly used (less than 40 percent)	1. College of Agriculture 2. vocational schools 3. Sugar Corporation 4. Wine and Tobacco Monopoly Bureau 5. dealers 6. Joint Commission on Rural Reconstruction	1. College of Agriculture 2. vocational schools 3. Provincial Farmers' Association 4. Sugar Corporation 5. Wine and Tobacco Monopoly Bureau 6. Dealers
29. Channels used for obtaining farm information		
(a) with upper level agencies	Mainly through publications and written releases	Mainly through personal contacts
(b) with experimental stations	Through written releases and farm magazines	Through personal contacts
(c) with corresponding or lower level agencies	Through personal contacts	Through personal contacts
(d) with commercial commodity extension channels	Through personal contacts	Through group contacts
30. Channels used to communicate farm information to township extension workers	More intensive use of communication methods and mainly through educational activities such as 1. personal contacts 2. training meetings 3. extension activities 4. pamphlets, and leaflets	Less use of communication methods and mainly through bureaucratic procedures in addition, personal contacts and training meetings, general meetings and official correspondance were heavily employed

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